

Sleep Guide

## Why is sleep important?

Sleep is incredible. While we dream our mind not only works through our problems, but also regenerates it's neurotransmitters, consolidates the information we were exposed to in the day (learning), and dreams up new ideas and solutions. Our body rebalances hormones, grows and regenerates. A lack of quality sleep can negatively impact our energy levels, libido, concentration, attention, drive, motivation, and memory. Sleep deprivation reduces our performance mentally and physically, leads to worse decision making and slower learning. It slows the pace at which we can recover from physical training and reduces work capacity and strength performance in the gym. It's bad for our relationships, our health, and our performance. The really awful part is that very few people actually get good sleep. Even fewer get enough of it. Chances are that you do not get the regeneration you should be getting out of your sleep.

If you are to take on a high performance lifestyle you really need to optimise sleep. So much so that it's often the first thing I attend to with clients who come to see me for training. Once we improve sleep everything gets better. Drive and attention increase which leads to better workouts and better decisions about food and lifestyle. Caffeine consumption goes down and this further improves sleep. As growth hormone and testosterone rise so does adaptation to training, and progress improves. As energy increases the drive to train increases and more worthwhile sessions can be added in. As neurotransmitter balance is restored we see improvements in satisfaction with life, concentration and performance, not to mention better relationships. It is extremely powerful, and this is why we start here.

# How Lack Of Sleep Affects: Blood sugar:

Lack of sleep causes higher fasting blood sugar due to higher cortisol levels, as cortisol, the chronic stress hormone, increases blood sugar as part of the fight or flight response. Higher fasting blood sugar leads to greater inflammation, especially in the arteries, and often more difficulty getting lean. It has also been shown that sleep deprivation can lead to poorer control of blood sugar levels through the insulin response. It is even possible that lack of sleep can indirectly have negative impact on insulin sensitivity.

### **Cortisol:**

Lack of sleep causes disruption to cortisol levels. This is a hormone that plays a huge role in our circadian rhythm and metabolism; it should be high in the morning and low in the evening, following a daily rhythm. Lack of sleep can cause chronic elevation of this hormone which can have a widespread knock on effects throughout the body. In extreme cases this can lead to adrenal fatigue, thyroid problems, further sleep problems, compromised immune function and low sex drive.

### **Growth Hormone:**

Our biggest release of growth hormone, which is released in pulses through the day and night, comes when we are asleep. Poor sleep can lead to lower growth hormone levels. This can have a negative impact on fat loss, exercise recovery, muscle growth and even the rate of aging.

### **Testosterone:**

Due in part to elevated cortisol levels, among other factors, lack of sleep can result in suppressed testosterone levels in males. This can have a huge impact on mood, performance in the gym, at work, and in the bedroom, drive, decision making and confidence. This effect is less pronounced in women due to the fact that they make far less testosterone. However chronic sleep deprivation can, at least theoretically, still have a negative impact through affecting testosterone in females.

### **Thyroid:**

Due in part to the impact on the adrenal glands, long term sleep deprivation can cause problems with thyroid balance.

### **Sugar Cravings:**

Due to the disruptive effect sleep deprivation can have on blood sugar it can lead to craving for sweet foods and carb rich foods.

## Muscle growth:

If growing muscle is a goal of any kind, you absolutely must pay attention to the quality of your sleep. Due to the various effects on hormones such as testosterone, growth hormone and cortisol mentioned above, Lack of great sleep can put the brakes on muscle growth very quickly. Additionally, we do our best growth and repair while asleep. This is the time our bodies regenerate and recover, a disruption to sleep can mean less time spent in our most regenerative of states and this cost can negatively impact muscle growth and repair.

## **Decision making:**

Sleep less than 6 hours and decision making is compromised the very next day. When trying to stick to a healthy way of eating, while coupled with sweet cravings and lethargy, this is a recipe for a binge!

## **Recovery from Training:**

Sleep deprivation will compromise your ability to recover from training. So much growth and repair, as well as neurotransmitter balance happens when you sleep that recovery from intense training can become troublesome.

### **Drive, Motivation, and Attention:**

Due to sub-optimally replenished dopamine and *acetylcholine* (the "Yang" neurotransmitters); drive, motivation, working memory, attention, concentration, focus and feelings of reward can be reduced when sleep deprived.

### Life Satisfaction:

Due to depleted serotonin and *GABA levels, (the "yin" neurotransmitters),* feelings of satisfaction, happiness, calmness and clarity can be reduced. Feelings of anxiety, pressure and disconnectedness can be heightened.

Please understand I am not scaremongering here. One night of poor sleep and you're not going to be an anxious, depressed, impotent weakling with the drive of wet linguini. One night of bad sleep might affect sugar cravings and focus badly in one person but have zero effect on sex drive and energy levels. In another person, recovery from exercise and sex drive will be compromised but mental performance unaffected. Each of us is different and thousands of individual factors affect the outcome of a single night, or string of night's poor sleep.

The take home message is this: We need sleep to thrive. The more good quality sleep we get the better our waking lives are for it. Additionally, the poorer the quality of sleep we get and the more sustained the amount of time we suffer from a lack of quality, deep sleep; the worse it will affect us.

## What makes good sleep?

There are many ways to "track" your sleep. Many will probably be of great utility to you and the impartial data associated with these various devices can be insightful to help you better understand the quality of sleep you're experiencing. But with each of us being different and no true steadfast

rules being established for what constitutes a brilliant night's sleep, the ultimate measure of how well you sleep is how refreshed you feel in the morning. If it takes you five snoozes to wake up you did not sleep well. If you need three cups of coffee just to start the day you did not sleep well. If you need a 10 feet safe zone around you for fear of snapping at people, you did not sleep well, (or you're a bit of an arsehole).

Here's my quick sleep quality questionnaire. If you answer yes to more than two of these your sleep can be improved and your life with it!

- 1. Do you struggle to fall asleep
- 2. Do you wake more than once in the night
- 3. Do you struggle to wake up
- 4. Do you need caffeine to get going in the morning
- 5. Do you wake easily at the slightest sound

## How to get an awesome Night's sleep:

### **Environment**

Your environment plays a huge role in the quality of sleep you're able to get. Everything from the temperature, the mattress and the level of light will have impact on the quality of sleep and thus recovery you're experiencing. We evolved sleeping in caves in pitch black, zero EMF radiation, quite cold, rising with the sun. Today we generally sleep in environments that are too bright, polluted with EMF radiation, on materials that are toxic to us, in heated houses. Here's a guide on simple things you can do to improve your sleep environment.

- 1. **Darkness**: Your room should be completely black. If you can see the walls it's too light. Get black out blinds, or even an eye mask. Cover the light on your alarm clock; make sure the TV on the wall is off. Light disrupt's melatonin production, which is the hormone that actually gets you into deep and REM sleep. This can occur even if the light is shone on certain parts of the skin but does not touch the eyes themselves.
- 2. **Silence:** Make sure there's as little noise as possible, if it is outside your locus of control the use ear plugs. Another good method is ambient noise; play quiet tapes of nature sounds, like waves crashing on the ocean or rain. These sounds are quite relaxing and can drown out more disruptive noise like cars or people coming and going from their houses, this is especially good for shift workers.
- 3. **No Screens:** No electronic screens within an hour of bed. If you read on an iPad use night mode to make the screen dark, if you use a non-back-lit kindle that's fine. But shut down the laptop, TV, computer, iPad etc 60 minutes before sleep. If this absolutely is not possible get some blue blocker glasses or use one of the available apps to remove blue light from the screen. This means no Facebook on the smart phone as well!
- 4. **No Work:** For those of you who like to work late, shut it down an hour before you go to sleep. Get a wind down routine as described below. Don't worry about not getting stuff done, you will be far more productive in your waking hours.
- 5. **Be Cool:** The temperature of your room for sleep significantly affects your sleep quality. Your room should be cooler at night as body temperature rises and being too hot will disrupt sleep. Most people hit an ideal around 14 18 degrees celsius. There is tech available that tracks this for you and can determine your optimal sleep temp. Check out "Withings" products for more on this. There is also tech to help maintain that temperature. Check out <a href="eight-sleep">eight-sleep</a> for the market leading device. Its like a mattress topper that maintains a constant sleep surface environment throughout the night.

**Sleep position** can make a big difference also. I have found the best sleeping position to be lying on the side (preferably the weak side, so left side if right handed and vice-versa). Place a pillow between your legs and hug it, this prevents you from rolling onto your front in the night, keeps airways open, reduces snoring if you suffer from this and is great for your spine and shoulders. See image below.



### **Nutrition**

What you eat during the day can have a huge impact on the quality of sleep you get each night. In reality, the process of a good night's sleep starts when you wake up and happens all through the day. Caffeine, fats, carbs and even what type of protein you eat and when can have a big impact on your sleep quality and its degree of regenerative properties.

Let's start with Caffeine. Caffeine has a 7 hour half-life. Meaning it takes 7 hours for your blood levels to drop by half. Therefore if you have 600mg of caffeine in your body at any one time in the day you're going to negatively impact your sleep. For this reason I recommend limiting caffeine intake to just tea or coffee. If it's coffee I recommend just one or two cups, early on in the day is best. Tea should also be cut off before lunch or switched to a naturally caffeine free variety.

**Carbs**: Chronically low carbohydrate diets can negatively affect sleep in some people. It has to do with the production of serotonin which is stimulated by carbohydrate intake. In addition consuming carbs can lower cortisol and promote a restful state. For this reason I recommend having a portion of carbs with the evening meal. This is actually key to the EP approach to nutrition. I generally recommend a focus on fats first thing in the day and including carbs as the day draws to an end. This setup is not only great for daytime energy and sleep, but great for body composition too. Watch out for much more information coming soon from EP.

**Fats**: MCT's can improve sleep if taken just before bed. They promote balance of blood sugar levels and provide the brain with ketones. Ketones may actually help the brain regenerate neurotransmitters faster and reduce the need for sleep, which is also an important point to make on the carb front. If you're on a ketogenic diet you may well not need as much sleep. Don't see 6 hours a night as a bad thing if you are waking fully refreshed and motivated.

**Proteins**: Certain amino acids are stimulatory for certain neurotransmitters. So eating foods that are rich in particular amino's at a particular time of day can have a complimentary effect. For sleep, eating foods rich in tryptophan and glutamine stimulate the production of serotonin and GABA, the calmative neurotransmitters. This can help significantly with sleep quality. White meats tend to be a great evening food choice for this reason. Red meats, however are rich in an amino acid called tyrosine that the brain uses to make dopamine, the neurotransmitter of drive and motivation, making red meat great breakfast food.

Sugar: Eating sugar late at night will disrupt sleep. Try not to do it.

**Alcohol:** Many people use alcohol to help them sleep. The truth is that alcohol helps you get to sleep because it is a depressant to the whole system, but has a significantly negative impact on the quality of sleep you will experience. So avoid alcohol for the main.

**Hydration:** Being dehydrated can negatively impact sleep. Pay attention to the two side of hydration; water and electrolytes. Many people lack electrolytes such as sodium and potassium for various reasons and often this can be a limiting factor even with sufficient water intake. This is especially true if on a low carbohydrate diet, which should be higher in salt but often isn't due to the health conscious nature of the people on them. Try adding 1 tsp of pink himalayan rock salt to your daily food intake.

## **Supplements**

Magnesium: If there's one supplement that my clients never want me to run out of- it's magnesium. The overwhelming majority of the population is deficient in magnesium and the impact is serious. With over 400 functions inside the body this mineral is exceptionally important. Most people are deficient due to a deficient food chain, the absorption of magnesium by plants is blocked by nitrogen. Most fertilisers are nitrogen based so almost all plants are low in magnesium (one reason why organic diets are superior to conventional farming.) Magnesium is a calming mineral, the nervous system uses it to calm down the sympathetic (yang) nervous system and stimulate the parasympathetic (yin) nervous system. This means it supports recovery and regenerative processes such as sleep, calming down after stressful events and digestion. Magnesium deficiency causes difficulty winding down and falling asleep. Taking magnesium removes what can be a simple but powerful block to sleep.

I recommend starting with 10mg / kg body weight per day in divided doses.

For example: 80kg male takes 800mg magnesium per day.

**Tryptophan**: Is an amino acid found in many foods and is a precursor to serotonin, a neurotransmitter that promotes feeling of happiness and relaxation. Serotonin helps you sleep as it is a calmative neurotransmitter and facilitates rest. People who are depressed are often low on serotonin. Tryptophan facilitates the production of serotonin and can have immediate impacts on sleep quality. My personal favourite is to stack this product with magnesium in a formula called UberMag plus T. The combination really helps sleep. Again in people who are actually quite low in serotonin this combo can be profoundly powerful.

Recommended dose is 500mg - 2000mg per night, not necessarily needed every night and the goal should be to reduce the dose as sleep improves. There is some concern over the use of tryptophan in people using antidepressants and the interactions between these drugs and serotonin. Ask your doctor before using this supplement if you take prescription or non-prescription antidepressants.

**Inositol**: Is a member of the B complex of vitamins and has effects on the balance of neurotransmitters, especially GABA. It has been studied in conditions such as anxiety, depression ADHD and many more and has been shown to have positive impacts. Again this nutrient will impact some people more than others. I personally found it to have a significant impact on my sleep and mood, When using inositol I have noticed improved ability to get to sleep, stay asleep and generally wake feeling more rejuvenated (self reported and personal experience i admit. But these effects are very common among clients who have used inositol). It has not been shown to have any significant negative side effects.

Dosage recommendations: 1 - 4g per day. (up to 18g has been studied and shown to be safe)

## Winding down

One of the most obvious and wide spread mistakes I see clients making all the time is a lack of wind down time before bed. You can think of sleep as a lack of wakefulness. As such doing things that stimulate you right up until the moment you decide to sleep doesn't work. We need a period of time to slowly wind down our minds and gently allow our state of wakefulness to calm down. There are a number of factors in winding down, some hormonal, some psychological, some physiological and some related to neurotransmitters. In order to get that quick, effortless drop off to sleep when you do go to bed, you should think carefully about your last 60 minutes of wake time. Here are the various factors of a good wind down routine with my personal notes:

#### **Reduce Cortisol:**

Cortisol is a stress hormone; it is made in the adrenal glands and can be thought of as a low grade adrenaline. It is the hormone that actually causes us to wake up in the morning (so obviously not great for helping us sleep) and should follow a nice circadian rhythm of quite high in the early portion of the day slowly dropping to quite low in the later part of the day and very low at night while asleep. There are many reasons why this rhythm can be disrupted and most are to do with the way we live. Some common factors that I see in people that keep this hormone high in the evening are things like watching stimulating TV, hostile home environments, dealing with finances, or work troubles late at night and drinking coffee too late. Avoid these mistakes using the strategies listed below. But rather than focus on not stressing yourself out I find a more powerful approach is to focus on actively reducing cortisol.

### Practices that actively reduce cortisol:

Meditation
Stretching / yoga type activities
Eating, especially socially
Playing with your kids
Reading, especially fiction
Watching comedy
Walking
Having Sex
Doing a grateful log

You can use any of these activities as part of your wind down routine and you do not have to be rigid. If you like meditating and want to use that tool then great. But if watching some comedy or going for a walk is more appealing then fine. You can also switch and change between them if you like. Doing the same thing every night is not necessary.

### **Quick Explanation: The grateful log:**

This tool was first taught to me by Charles Poliquin, world famous (in the fitness industry) strength coach to many Olympic medalists. It is one of the most impactful things I have ever been taught. It is simply the practice of being grateful. It is very hard to be grateful and angry at the same time. It is almost impossible to be grateful and fearful at the same time. Practicing being grateful can change your whole perspective on life, the world and your yourself, make you kinder, gentler and calmer, and help you get a great night's sleep. Simply write down 3 - 5 things you're grateful for today. Try not to use the same things twice for at least a while. It can be something as mundane as "that guy who held the door open for me whilst I was running in from the rain today" or it could be as big as you like, such as; "I'm grateful that my aunt's surgery went well and she's still alive". Either way, it forces you to focus on the positive things that are actually happening in your life right now, and that increases serotonin and reduces cortisol.

As for the factors that keep cortisol high, you may be able to control some of them. Let's take two common ones; dealing with finances late in the day and dealing with work late in the day.

**Dealing with finances:** Typically the mail is delivered at some point after you've left for work and before you get home, leaving you to open the mail when you get home and deal with bills, bank statements, parking fines, council tax, etc, when you should be starting to wind down. I typically get home from work around 8pm and this is the last time I want to be reading letters about numbers of any description, let alone finances. The problem is not just cortisol, but the fact that you're likely suffering from decision fatigue, you're hungry, and you want to relax. This state is not the best state to be in when dealing with financial decisions of an analytical nature. As such I open all mail the morning of the following day. Now I'm fresh, I'm calm and I have time and inclination to deal with everything constructively. Nothing ever happened over night that made the situation worse.

**Dealing with work late in the day:** This is all too common in today's world. The answer, though, is simple. Turn the phone off, close the laptop and relax for an hour. Again nothing is likely to happen overnight that will make the situation worse and people will just have to wait for a response. You'll be far more productive over the course of a year or a career by winding down, getting a good night's sleep and dealing with it tomorrow than you will sacrificing recovery to get it done now. Very rarely will it be worth it.

### Disinhibit melatonin production:

Melatonin is the hormone that actually gets you to sleep, (at least deep and REM sleep). Its production is inhibited by blue light, which is found in tablets, computers, TV and phone screens. As such you should avoid all these for an hour before bed. You could also get red or amber lights for your bedroom. Being the opposite end of the spectrum than blue light, red light does not inhibit melatonin production. Again the activities listed above are mostly great for this.

#### Quiet the brain chatter:

I'm definitely guilty of many nights lying there awake staring at the ceiling with all sorts of random and colliding thoughts flying through my head. It always seems to be that you remember "I need to email XYZ to my accountant" or "I forgot to call Jim and I told him I'd call tonight". A good wind down routine quiets this noise exceptionally well and allows me to fall asleep in a few minutes. The best strategies I have found are mindfulness meditation, "worry time", and reading.

**Mindfulness** meditation can be used to allow the brain to work through all that stuff all the while just labelling "oh, I'm having a thought about my task list" rather than obsessing you simply acknowledge the thought and let it slip away. After a while you get good at this process and soon enough the mind goes quiet and calm. It's like diving below the surface of choppy waters; the deep is always relatively calm.

"Worry time" Is a great tool I learnt from my wife (a psychologist). It's used quite a bit in CBT and I found it quite helpful. When something pops into your head that's worrying you, simply write it down in a note pad and literally set time aside to worry about it. So 8am on Wednesday when you start work a little later you're going to worry about everything, constructively. I am worried about X and I am going to do ABC in order to improve the situation. Rather than unproductively worrying about it at 11pm until you stop simply because you're now more worried about being tired tomorrow.

**Reading** helps to shift your focus. I personally don't read fiction, but I am told its excellent for this as it switches on a different part of the brain from the analytical part that tends to do the worrying. Personally I read non-fiction related interest, never business development as that just sets me off thinking about taking over the world.

**Feel good:** You sleep well when you feel good. Serotonin, the calmative and "happy" neurotransmitter will increase when you're happy. So going to bed happy is awesome for sleep. I find the grateful log is an essential. Good food and company are amazing and sex works every time. (One hopes).

## **Evening Ritual**

Wind down, de-stress, sleep well and be more productive every day, for free.

## **Step 1: Brain Dump**

This process "book ends" the day allowing your brain to get a handle on everything that just happened, learn better and make better decisions. It's simple: Write down in a journal:

- A "Done" list. ("To do" lists are like looking up a big hill, "done" lists are looking down from the top). Only write down impactful things you got done, even you don't care that you posted on Facebook so don't write crap like that down. Be focused.
- **Issues**: Write down any issues that came up today that need addressing in the next few days.
- **Objectives**: Take a big step back and look at what you have on your plate, and what you already have in your diary over the next few days, set yourself objectives that are important and impactful. Schedule time to deal with issues or identify people who can help and delegate.

## Step 2: The One Thing

Looking at your objectives and your goals side by side. What's the ONE thing you can do tomorrow that will have the greatest impact? Write it down. (for more read The One Thing By Gary Keller and ....) Steps 1 and 2 will allow you to remove these niggles from your thoughts and get your organised, It avoids you getting lost in the noise of life.

## Step 3: Wind Down

Now that all of that "stuff" is out of your head, you should be free to wind down. Over a year you will be much more productive if you're well rested and happy than you will if you're a stressed mess. Your performance will only be as good as you are. So wind down! Use the following tools:

- Meditation
- Stretching / yoga type activities
- Eating, especially socially
- · Playing with your kids
- · Reading, especially fiction
- Watching comedy
- Walking
- Having Sex

## Step 4: The Grateful Log

One of the most impactful things I have ever used. It is simply the practice of being grateful. It is almost impossible to be grateful and fearful or stressed at the same time. Practicing being grateful can change your whole perspective on life and the world you live in. Simply write down 3 - 5 things you're grateful for today. Try not to use the same things twice for at least a month. It can be mundane or it could be as big as you like. Either way, it forces you to focus on the positive things that are actually happening in your life right now, and that increases serotonin and reduces cortisol.

## Step 5: Be Happy

Happiness promotes good sleep by raising serotonin and lowering cortisol. Be happy and sleep well, sleep well and be happy. It is a positive cycle.

## Chronotype

I used to think that people who woke up late and stayed up late were only different from those of us who wake up early and sleep early because of learnt behaviour and entrained patterns. But I was wrong. I recently learnt that we each have a "chronotype", which is genetically determined. Essentially an evolutionary advantage was bestowed upon our species by having a genetic variance within the population where some of us would respond very quickly to increasing light in the morning and others more slowly. Those of us who reposed quickly in the morning respond quickly to lowering light levels in the evening and those who respond slowly in the morning will respond slowly in the evening. Giving us people who were up at 5am fishing, catching everyone breakfast and those who were lying in late but would be highly social active in the evening, tending the fire, making music and alike. You can see the clear advantage to a community in having a mix of both, it means very little time where the tribe would all be out for the count and provide natural defence. So if you're a morning person, be a morning person, get up early, get to bed early. If you're an evening person feel free to stay up later and try to organise your working day around your chronotype. You will be much more productive and happier. For example, I'm writing this at 5:15am. I am a morning person and like being up and already working before everyone else. But I tend to be very tired past 9pm and aim to be asleep by 9:30 most evenings. My wife is an evening person and is remarkably annoyed by my chipper 6am self, but did most of her doctoral thesis between 6pm and midnight. Do what suits you best. You can find out what type you are at this link: https://www.bioinfo.mpg.de/mctg/core work life/core/introduction.jsp?language=eng Although you probably have a good idea already.

### **Sleep Cycles**

We don't sleep by the hour. So why do we say 8 hours is ideal sleep? In fact it is not. We sleep in roughly 90 minutes cycles, each cycle has 5 stages and REM sleep is the most regenerative of the bunch. As such we should track our sleep by how many cycles we are getting. Some professions, for example professional sports may require changes of sleep routines on a weekly or even daily basis. As such changing the way you see sleep to "how many cycles did I get"? can be highly productive and impactful. Equally, don't simply look at how many sleep cycles you get per night but rather how many per week! You may have no choice but to get reduced sleep one or two days a week or even every now and then. You may have a game in a different city, you may have a deadline, it may be the Super Bowl and you happen to live in Nottingham. It's Ok; it doesn't make you a bad person or an unhealthy one. It doesn't even need to make you an unproductive one. See sleep as complete physical and mental regeneration. You may need more or less on a daily basis and you can always nap to make up time. It might not be perfect, but neither is the world in which we live. So let's delve into the specifics on how this might affect what you do.

I'll use myself as an example: Here's a table that shows my wake time (more on that shortly) and my sleep by cycles per week.

Wake Time	Sleep time (3 cycles)	Sleep time (4 cycles)	Sleep time (5 cycles)	Sleep time (6 cycles)	Sleep time (7 cycles)
05:00	00:30	23:00	21:30	20:00	18:30
05:30	01:00	23:30	22:00	20:30	19:00
06:00	01:30	00:00	22:30	21:00	19:30
06:30	02:00	00:30	23:00	21:30	20:00
07:00	02:30	01:00	23:30	22:00	20:30
07:30	03:00	01:30	00:00	22:30	21:00
08:00	03:30	02:00	00:30	23:00	21:30
	Major Lack	Minor Lack	Ideal	Minor Excess	Major Excess

So here's how a typical week might look:

Sleep cycles	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Night Sleep	4	4	5	5	4	5	4
Naps			1			1	
Weekly Total	33						

So as you can see over a week I get around 33 sleep cycles. On a few nights I sleep less than I'd like because of evening activities and early starts, but I know that on Wednesday and Saturday I can get an extra cycle in due to an afternoon nap (which I highly recommend) and this keeps me feeling fresh and recovered all week. If I have a deadline and need to limit myself to 3 cycles per night for a week, I might just make a little more time for naps or ensure that this type of behaviour does not prolong for too long. I also have a reduced sleep protocol that is included in the bonuses that helps regenerate the neurotransmitters more quickly and effectively (hacks) the need for sleep, this is great when used on a short term basis.

### Wake time

This is an extremely important factor to learn. How many sleep cycles you get is determined by the time you wake up. Have you ever woken at 4am, perfectly wide awake thinking it was time to get up? You presume it's around 6:20, waiting for that alarm to go off any minute, when it doesn't, you roll over, look at the alarm clock and.... it's only 4:15! "awesome" you think I've got 2 more hours in bed. You take about 15 - 20 minutes to drift off back to sleep, then blah, blah blah.... your alarm is going off, you're disorientated, you're soooo tired. Whats happening? at 4am you were wide awake, now, despite having 2 hours more sleep you're completely knackered. What's going on?

When you woke up at 4am you were neatly at the end of a complete sleep cycle. Ready to wake and feeling good. When your alarm went off at 6:30 you were in the middle of a cycle, your body not ready to wake yet and your mood reflects it!

Want to wake up feeling awesome and ready to crush the day every day? Plan your wind down time and sleep time around your wake time. Use the table above, or the complete table in the bonuses to help you.

For example: If I'm going to miss my 9:30 sleep time due to, let's say, a social activity, date with my wife or sports event, I don't worry, I know I'll get 23:00. I used to rush home, dive straight into bed and stress about getting to sleep for fear of being tired all day tomorrow. Now I simply aim for 23:00. If I miss that it's 12:30, I'll make up an extra sleep cycle later in the week, or have a nap tomorrow.

Ideally you will also keep your wake time within +/- 1 hour all the time. So mine is 5am, 6am at the latest as much as possible. This is because of the circadian rhythm. It sets your body clock, and that has huge impact on hormones, productivity, energy levels, hunger and much more. Even if you have a late night out one night, I recommend sucking it up and getting up at the same time the next day, even if you have a nap in the afternoon. The reason, apart from disruption of circadian rhythm is that a cycle often appears as follows: Monday through Friday you get up at, say 6am and go to bed at, say 22:30. Friday night you go to bed at 12:00 because Saturday you can sleep in till 8:00. So Saturday evening you're not tired and you go to bed at 01:00 because, hey, its Sunday tomorrow and you can sleep till 10:00. So you do, then you try to go to sleep at 22:30 on Sunday night but aren't the least bit tired. You say up till you are tired thinking, "shit, I should really be in bed I've got work tomorrow and its nearly midnight"......6am wakeup call is now not so fun, especially if you timed it wrongly.

Alternatively you get up on Saturday at 7am and Sunday at 7 am, despite the late nights You're likely wanting your bed early on Sunday night anyway and wake up Monday well rested.

### Wake Up With Light!

One final point about the waking side of sleep. Get a light based arm clock. Personally I use the Lumie Body Clock. We are supposed to wake up with light first thing in the morning. As the sunlight creeps in through our eye lids and the translucent parts of our skull, it signals the pituitary gland to stop producing melatonin, slowly raises cortisol and tells us it is time to wake up.

Most people use an alarm clock to wake up in the morning and this is actually a problem. An alarm causes a stress response to wake you up when your body is not prepared to wake up is not the best start to the day. But of course we cannot manipulate the time that the sun comes up to our personal schedule. Enter the lumie body clock, or any other light based alarm clock. After setting a wake time, the clock will very gradually start to illuminate your room, Gently bringing you into consciousness. When you wake this way you almost always feel much more energised and ready to actually get up than with traditional sound alarms. I find this especially useful in the UK in winter, when the sun rises as late as 9:30am. When I make this recommendation the usual concern is that you won't wake up in time, and you'll be late, which is far more stressful than you current alarm and you'd rather not risk it. Do not worry. It never fails. The bulb starts lighting up around 30 minutes before your stated wake time and it works flawlessly (unless you sleep in an eye mask). By the time you wake you're at the end of a sleep cycle and you're fully ready to go.

A word of caution. Do not try to bodge your own here. I have a client, who shall remain nameless, who once tried to rig his own. The storey ends with an ultra-bight halogen lamp suddenly sparking onto full power every morning, not quite the gently sunrise effect he was shooting for! Looking back he describes this as a particularly stressful start to the day.

## **Summary:**

Life is better when you sleep well.

You'll likely live a fuller, longer life with rich experience, good energy and good mood.

You'll be more productive, calmer, more decisive and less stressed, less anxious and less cranky.

You'll have better relationships, better sex and a better body

To sleep well, you must eat well, hydrate, wind down and be happy

Magnesium, GABA, inositol and tryptophan can help massively

Screens, stress and mobile phones can negatively impact sleep and inhibit recovery

Think is cycles not hours, use the cheat sheet to help.

Set a wake time and stick fairly close to it.



## **Anabolic Sleep Protocol.**

"You do your best body building when you're asleep". That's the advice given to me that first ever made me interested in sleep. Provided by a world class strength coach who taught me much in my formative years in the industry.

Strength training does not build muscle mass. Recovering from strength training builds muscle mass. Sleep can be thought of as complete mental and physical regeneration. It's a time when our body grows, repairs, regenerates neurotransmitters and balances hormones.

If growing a substantial amount of muscle mass is on your agenda, this protocol will produce.

If recovering from hard training and getting stronger is your objective, this protocol will deliver.

If you've just had surgery and need to recover faster, this protocol will help.

I've used this protocol over the years to grow muscle and get me through extremely demanding training periods with far less pain, DOM's and rest days than I otherwise would have had to endure. Not only that but I have used the protocol with many other clients to produce real world results. This is probably version 10 or so of the protocol. I've tried to make it as simple as possible. Over the years I have played with dozens of different combinations, this version is the few products and processes that I think make a huge difference and have seen results to confirm this.

For growth try using this protocol every night for around 3 weeks and have body fat measured before and after the test period, prove to yourself that it works. Feel free to send us the results so that I can continue to refine the protocol and make it even better based on the feedback you provide. I suggest using the athletic hypertrophy training program available on EP-Online and the growth cycle nutritional strategy coming soon. There's even a form you can fill out to get first notice when the product is actually finished.

For faster recovery you will notice the difference within 24 hours. The program will allow you to train harder, more frequently with less soreness and faster super-compensation allowing you to build strength and mass more quickly. Excellent for pre-season or overreaching phases.

Essentially the idea is that we flood the system with anabolic nutrients while the body is at its most anabolic. Timing is everything and the combination is very specific.



## **Anabolic Sleep Protocol**

The last meal of the day is extremely important, heres what I recommend eating around 2 - 3 hours before bed

Food	Amount	
Animal Protein, preferably from white meat	0.5g / kg body weight e.g. 40g for 80kg male.	
Veggies as desired.		
Carbs if lean, from whole foods such as rice or potato	1g / kg body weight	

Product	Dose	Timing	
Whey Protein (shake)	0.5g / kg body weight e.g. 40g for a 80kg male	1 hour before bed	
MCTs	10g of MCT oil or Brain Octane	1 hour before bed	
Brazil Nuts (shake)	30g	1 hour before bed	
Zinc	60mg for a male	1 hour before bed	
Magnesium	10mg / kg body weight	400mg with evening meal 400mg with pre bed shake	
Tribulus Supreme by Poliquin	500mg - 1000mg	With pre bed shake	

### Quick Explanations:

Whey protein increases protein synthesis acutely and the animal protein will sustain this for longer.

**Smart fats** will stabilise blood sugar for the night and the ketones will help restful sleep, staying asleep makes the protocol work better

**Brazil nuts** provide fibre, fats and selenium, which supports anabolic environment and provides slow release energy during the night

**Zinc** supports tissue repair and anabolic hormone production

**Magnesium** supports anabolic hormone production, deeper sleep, lower cortisol and higher growth hormone

**Tribulus** promotes testosterone and growth hormone production



## **Anabolic Sleep Protocol (No Nuts)**

The last meal of the day is extremely important, heres what I recommend eating around 2 - 3 hours before bed

Food	Amount
Animal Protein, preferably from white meat	0.5g / kg body weight e.g. 40g for 80kg male.
Veggies as desired.	
Carbs if lean, from whole foods such as rice or potato	1g / kg body weight

Product	Dose	Timing
Whey Protein (shake)	0.5g / kg body weight e.g. 40g for a 80kg male	1 hour before bed
MCTs (in shake)	10g of MCT oil or Brain Octane	1 hour before bed
Selenium (in shake)	200 mcg	1 hour before bed
Coconut oil (in shake)	1.5 tbsp	1 hour before bed
Zinc	60mg for a male	1 hour before bed
Magnesium	10mg / kg body weight	400mg with evening meal 400mg with pre bed shake
Tribulus Supreme by Poliquin	500mg - 1000mg	With pre bed shake

### **Quick Explanations:**

Whey protein increases protein synthesis acutely and the animal protein will sustain this for longer.

MCTs and coconut oil will stabilise blood sugar for the night and the ketones will help restful sleep, staying asleep makes the protocol work better

Selenium, supports anabolic environment

**Zinc** supports tissue repair and anabolic hormone production

**Magnesium** supports anabolic hormone production, deeper sleep, lower cortisol and higher growth hormone

**Tribulus** promotes testosterone and growth hormone production



## **Reduced Sleep Protocol**

There will be times that you need to get by on less sleep than is ideal. We all have the occasional deadline, travel, competition etc. that will disrupt normal operating procedure.

This protocol is designed to get you to sleep faster and regenerate yourself enough to get away with reduced sleep for short periods of time. I do not recommend using this as a permanent strategy for sleeping less. I hope by now you understand how important sleep is to our health and thriving.

The magnesium helps the nervous system to relax and helps you get to sleep, stay asleep and sleep more deeply. I have never used another product that has helped my clients so much and with so many reports back of how effective it truly is. Use Uber Mag for best results. Due to its 4 different types of magnesium the product is well absorbed and excellently distributed throughout the bodies tissues, as each chelate has a different affinity for different tissues in the body, making this a superior magnesium product.

**The Tryptophan** is a precursor to serotonin which makes you feel happy and relaxed and promotes the proper production of melatonin which makes you sleep deeply. This amino acid has a significant impact on mood, promotes feelings of relaxation and promotes a state conducive to sleep.

**The MCT oil** helps the body get into ketosis quickly for a few hours. I have definitely found that being in ketosis both helps me to stay asleep and some evidence shows that your brain can regenerate neurotransmitters more quickly when sleeping in ketosis.

On that point: I highly recommend ketosis for periods of high stress and inevitable sleep deprivation. The state will help you retain more muscle as it's protein sparing, eat less crap as your hunger and attention are generally much more stable in ketosis, and sleep less without feeling the strain, due to the cool neurotransmitter fact.



## **Reduced Sleep Protocol**

#### The Protocol:

Product	Dose	Timing
Magneisum	10mg / kg body weight	1/2 with evening meal, 1/2 before bed
MCT oil, or KETO CaNa	10 - 20g MCT depending on gut tolerance	before bed
Tryptophan	500mg - 2000mg depending on tolerance	with evening meal

Note that many of the products in this protocol are depending on tolerance. GABA can have profound effects on one individual and negligible effects on another. So start with a very low dose and slowly titrate upwards to find what works for you. The same goes for tryptophan. I can take 2g and feel great, but you might feel like you've been drugged and find it hard to wake on only 500mg.

MCT oil has a rather famous effect on the bowl, causing it to evacuate quickly if you take too much. Start with 1 tsp and titrate upwards to find what works for you. The same goes with Magnesium, too much has a laxative effect, so start with just 250mg and see what works best. This effect is worse for both products if you use them on an empty stomach.

Generally I can use this process to get by on 3 - 4 sleep cycles for a week or so. But lack of sleep will always catch up with you, so remember this is for short term use only.