

LIFESTYLE MANAGEMENT



RELENTLESS GYM

Lifestyle Management

01 Importance of sleep

Everything you need to know

02 Stress Management

What you should know about stress and the effects on your body



Importance of sleep

It is accepted that everything within the animal kingdom must sleep, yet the exact purpose and mechanism of sleep are only partly understood.

It always makes for an interesting topic as everyone can relate to it and has plenty of experience of it too.

Understanding sleep, the power of it and how to get as much high-quality sleep as possible is one of the healthiest things we can do.

We can all relate to how a loss of sleep can take its toll on our energy, mood, decision-making and ability to handle stress.

Sleep should therefore be of top priority for our clients, who are typically seeking to improve their bodies and health.

Many people try to sleep as little as possible, but just as exercise and nutrition are essential for optimal health and happiness, so is sleep.

No other activity delivers so many benefits with so little effort. It has a direct correlation to the quality of our waking life.

Here we will look at the true power of sleep, how it works and the importance of it.



The Role of Sleep

Despite sleep being of such importance to the human body, the purposes and mechanisms are only partially understood.

It is assumed the key benefits we get from enough sleep have evolved over time, thus creating greater dependence on getting sufficient and quality sleep.

Sleep is a naturally recurring state characterized by reduced or absent consciousness, and the inactivity of nearly all voluntary muscles.

Sleep timing is controlled by the circadian clock, and in humans, to some extent by willed behavior.

The circadian clock (also known as circadian oscillator) allows us to coordinate our biology and behavior with daily and seasonal changes in the day – night cycle.

This in-built biological clock operates over a 24-hour period and receives daily corrective signals from the environment, primarily daylight and darkness.

Circadian clocks are the central mechanisms which drive circadian rhythms. The term circadian comes from the Latin 'circa', meaning 'around or approximately', and diem meaning 'day'.

An endogenous (built-in), entertainable oscillation of about 24 hours



This clock is reset as the environmental changes through our ability to sense external cues of which the primary one is light.

This clock is considered to be intertwined with most cellular processes.

When we sleep, the body doesn't just shut down and switch off. In fact, while we rest, the brain oversees a wide variety of biological maintenance that improves our health markers and aids recovery.





Key proposed functions of sleep

RESTORATION

Sleep is restorative, and without it we are not able to work, learn, create and communicate at our highest level. With time, lack of sleep can lead to mental and physical breakdown.

Sleep has also been shown to be linked to the immune system. Sleep loss can impair our immune function, so by sleeping longer we can invest in strengthening our immune system.

Our sleeping brains have been shown to help remove metabolic waste products at a faster rate than during active state, further enhancing the restorative function of sleep. When awake we are exposed to a greater number of factors such as nutrition, stress and toxins, putting greater strain on our detox systems.

This can lead to a high level of free radicals in the body. Also, with a higher metabolic rate during the day, which produces greater levels of reactive oxygen species, there is a larger amounts of damaging cells within the body when awake.

When we sleep, our metabolic rates reduce and free radical production is decreased, allowing restorative processes to take over. The metabolic phase during sleep is anabolic, as we see a greater release of anabolic hormones such as growth hormone.



Key proposed functions of sleep

MEMORY PROCESSING

There have been numerous studies conducted to show the correlation between sleep and memory.

Furthermore, sleep deprivation has been linked to a reduction of 'working memory'. This is important because it keeps information active for further processing and supports higher-level cognition functions such as decision-making, reasoning and memory.

PRESERVATION

It's been suggested that sleep can serve as a 'preservation and protection' system to reserve energy and reduce risk.

How much Sleep?

With modern lifestyles people are sleeping less than ever, with the average person getting less than 7 hours per night.

While sleep requirements vary from person to person, this average is not enough for most, and is leading many people into chronic sleep disorder.

Most people sleep as much as they need, not as much as they should for optimal health and performance.

In reality, most healthy adults need between 7.5-9 hours of sleep per night for best results. Young adults and children are considered to require even more.

There is no system or protocol to show how many hours we should get exactly, and the best way is to evaluate how we feel throughout the day. If energy is low, memory is poor and we don't feel alert, then chances are we need more sleep.

Average Sleep Needs by Age	
Newborns - 2mo	12 - 18hrs
3mo - 1 year old	14 - 15hrs
1 - 3 years old	12 - 14hrs
3 - 5 years old	11 - 13hrs
5 - 12 years old	10 - 11hrs
12 - 18 years old	8.5 - 10hrs
Adult (18+)	7.5 - 9hrs

Sleep Deprivation

Everyone experiences trouble sleeping from time to time and this can be the result of a number of different factors.

A problem may occur when regular disturbances happen frequently, and these can begin to affect daily life too.

This can lead to a sleep disorder.

Sleep disorders are not just a simple diagnosis of lack of sleep, but all the negative symptoms that can be associated with it, namely poor energy, mood and health markers.

Many sufferers from sleep disorders tend to have an underlying medical or mental health problem, while those with sound health tend to sleep well.

This problem alone can lead to a number of health problems, and even a minimal loss of sleep can affect health and performance.

Just like eating disorders, many people go untreated and have difficulty linking their symptoms to a problem.

Also, for those who cannot resolve their sleeping habits themselves, they should seek out the help of someone trained in sleep medicine

SIGNS AND SYMPTOMS

Everyone will have the odd poor night's sleep leaving them sleep deprived for a short time, but if this becomes a chronic problem then a sleep disorder is likely. You may be sleep deprived if you:

- Need an alarm clock in order to wake up on time
- Rely on the snooze button
- Have a hard time getting out of bed in the morning
- Feel sluggish in the afternoon
- Get sleepy in meetings, lectures, or warm rooms
- Get drowsy after heavy meals or when driving
- Need to nap to get through the day
- Fall asleep while watching TV or relaxing in the evening
- Feel the need to sleep in on weekends
- Fall asleep within 5 minutes of going to bed

Sleep Deprivation

We may all feel these symptoms from time to time, but if it leads to regular occurrences of the below effects, the person is likely to be chronically sleep deprived.

The effects of sleep deprivation include:

- Fatigue, lethargy, and lack of motivation
- Moodiness and irritability
- Reduced creativity and problem-solving skills
- Inability to cope with stress
- Reduced immunity; frequent colds and infection
- Concentration and memory problems
- Weight gain
- Impaired motor skills and increased risk of accidents
- Difficulty making decisions
- Increased risk of diabetes, heart disease, and other health problems

How to sleep better

Those people with poor sleeping habits or disorders commonly share the same bad habits. There are a number of sleep promoting techniques and considerations that can be easily integrated into someone's evening routine.

GET A ROUTINE

Syncing with the body's natural clock, the circadian rhythm is one of the most effective methods we have to getting a good night's sleep.

Getting into a strict and consistent routine of going and getting out of bed at the same time each day can have huge benefits. It's also important to experiment with different sleep and wake times, as various set ups will benefit people differently.

So not only find the ideal length of sleep, but also the times this sleep should start and finish.

CONTROL THE SURROUNDINGS

On top of finding the best sleeping routine, we can naturally encourage the body to feel more alert or relaxed. A hormone known as melatonin is released when we are in dark surroundings, as it helps the body regulate the sleep- wake cycle.

If we are exposed to little to no sunlight during the day, we can release melatonin making us sleepy during the day.

In a bright environment, melatonin production is stopped. The same occurs at night when we do want a release of melatonin to induce sleep.

If we are exposed to bright light or electrical equipment just before bed, it can slow down the release. The goal should be to spend more time in daylight during the day, with less exposure to it (including artificial light) at night.

KEEP THE BEDROOM FOR SLEEP

Ensuring the bedroom is optimized for relaxing, unwinding and sleeping is essential. The bedroom should therefore become a place to be associated for sleep which will send a powerful signal to help us nod off.

Other important factors here are:

- Eliminating any noises that may disturb our sleep
- Keeping the bedroom at the right temperature
- Removing any electronic equipment
- Ensuring the room is dark enough
- Ensuring the bed is comfortable enough

IMPROVE NUTRITION AND EXERCISE HABITS

Good nutrition habits can drastically improve sleep quality, particularly in the last hours before bed.

Some important considerations are:

- Avoid eating large meals before bed
- Avoid drinking too much liquid
- Avoid caffeine in the latter part of the day
- Avoid alcohol before bed A small bedtime snack containing a balance of protein, fat and carbohydrates can be ideal to help people fall asleep, as that feeling of being satisfied can help the body rest.

Daily exercise can also lead to improved sleep, while exercising too late may disturb the body's natural wake-sleep cycle as it can act as a heavy stimulus on the body.

REDUCE STRESS AND RELAX

Stress related to family, money, work or other day-to-day difficulties can be a common sleep disruptor. Managing these stressors and using pre-bed relaxation techniques can be effective in aiding a better night's sleep.

Some common techniques are:

- Write down any problems or issues
- Conduct some deep breathing techniques
- Use progressive muscle relaxation techniques
- Avoid any stressing tasks or thoughts before bed
- Keep the bedroom clean and tidy
- Have a hot shower or bath
- Do something you enjoy before bed



| Stress Managment

What is Stress?

We will all suffer from high states of stress at some point in our lives. In today's busy society we are involved in regular stressful life situations, along with frequent and exhausting training schedules.

This stress is a burden on the body, and if the stress becomes chronically elevated and prolonged, we can end up massively fatigued and run down.

It can also put a halt on any body composition changes. What we don't always realize is the potential damage this is doing on the inside of our bodies and how it affects our health.

To show exactly what happens internally during a typical 'stressful' situation which we may encounter, let's look at an example: Say you are walking on the pavement and start to cross the road after checking it's clear in both directions.

Suddenly a car appears out of nowhere and is forced to swerve out of the way to avoid a collision with you.

Shortly after this event you will find your heart is racing, you are breathing heavily, sweating and shaking. You are in a state of shock.

One of the most common medical patterns seen in the health care industry is stress related illness.

There are a number of stresses, whether we recognize them or not that we will come into contact daily with.

It is the intensity of each stress, the frequency with which it occurs and the length of time exposed to it that all combine to form our total stress load.





4 Main categories of stress

Physical Stress – such as overworking, poor nutrition, lack of sleep or athletic over training, etc.

Chemical Stress – from environmental pollutants, food intolerances or IBS, poor diet and endocrine gland intolerances.

Thermal Stress – from overheating or over chilling of the body.

Emotional and Mental Stress – from family, friends, money, work etc.

It's the combination of these stresses on the body over time that can cause stress related illnesses.

Research has shown that those identified with stress related illnesses follow a series of events that occur as a reaction to chronic stress.

This series of events is known as 'General Adaptation Syndrome' (GAS) and consists of 3 key stages.

1. THE ALARM REACTION

This is the body's initial response to stress and kick starts the amount of adrenal activity, also known as a hyperadrenergic response.

This pushes the body into 'full alert' mode, forcing the adrenals to produce extra amounts of hormones to respond to this heightened state of stress.

Following this state of alert, the body will need 24-48 hours to recover from this overactive phase, so it begins to down regulate the over stimulated mechanisms.

The person will feel more tired and want to rest, while internally the hormones involved become resistant to more stimulation

2. THE RESISTANCE STAGE.

If the chronic stress is continued on long enough then the adrenals begin to adapt and to re-build themselves to deal with the added workload.

This stage of resistance can last many months or even 10-20+ years.

This prolonged hyperadrenic response can exhaust and deplete the adrenals, leading to stage 3.

3. THE EXHAUSTION STAGE.

This prolonged alarm reaction known as hyperadrenia will eventually lead to hypoadrenia, the point where the person loses the ability to adapt to stress.

Essentially, the body can no longer handle any further stress and the person may experience a total collapse of body function or specific organs or systems.

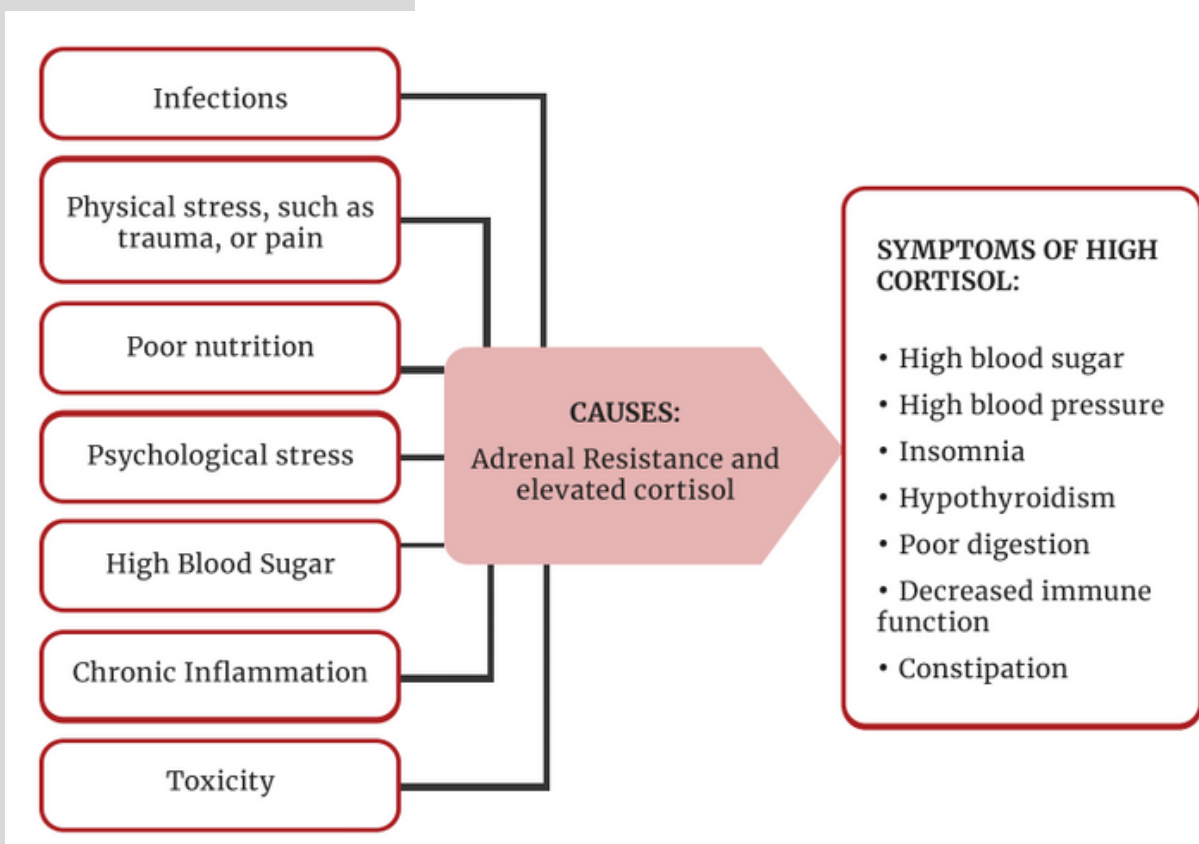
Professional medical treatment is necessary here. Not everyone will experience stage 3, or at least not for some time, but they will probably experience a number of other negative symptoms:

- Increased blood sugar levels (store more body fat)
- Suppressed pituitary function (low testosterone)
- Suppression of the immune function
- Insomnia
- Reduced liver detoxification
- Increased inflammation
- Learning and memory issues

The above are typically what occurs on the inside but spotting the issues on the outside can be difficult.

Common symptoms are:

- Difficulty falling asleep
- Feeling lethargic most of the day
- Suffering from allergies or falling ill frequently
- Suffering from mood swings or feeling emotional
- Excessive perspiration, dizziness or blurred vision



Diet can be a factor when it comes to some people's problems with adrenal fatigue, as it is one reason for elevated stress.

Family, friends, career and money issues can all be stressful issues at times, and it's important to manage these as much as possible.

Find the root cause(s) that may be adding extra stress in your own situation and then put procedures into place to reduce or eliminate these.

Remember to relax, laugh, sleep and have sex as much as possible, as these have a great effect on reducing the stress levels in the body.

Reduce or eliminate the main stressors in your lifestyle and remember not to take life too seriously all the time.

If you feel overwhelmed, struggling or just need to chat always remember to speak to someone.

We are always here for you, much love and Be Relentless - Coach Jake