



## How To improve Sleep

It is a basic human function, yet many of us struggle with it. What follows are some tips on how to improve your sleep quality.

Most of us need around eight hours of good-quality sleep a night to function properly – but some of us need more and some less. What matters, is that you find out how much sleep you need and then try to achieve it.

"As a general rule, if you wake up tired and spend the day longing for a chance to have a nap, it's likely that you're not getting enough sleep"

Here is an introduction to the mechanism of sleep, by understanding how our sleep is regulated we can try and focus on tuning in to our natural sleep cycle.

- There is a mechanism called the circadian timer which regulates the pattern of our sleep and waking according to daylight and night-time.
- Think of a clock that regulates our circadian timer this clock is made up of certain nerve cells in the brain and controls melatonin, a hormone that makes us feel sleepy. These nerve cells in our brain receive information about the amount of light in the environment though our eyes. So when night time falls, it tells the brain to create more melatonin (the 'sleepy hormone').

Factors that can cause a shift in this normal circadian pattern include light, certain medical conditions, exercise, meal times, diet and stress.

In humans, each person's circadian timer is set slightly differently, some people function best in the morning (larks) and others best in the evenings (owls), some people are somewhere in between.

#### Are you a lark or an owl?

If you are at your best and doing work or chores is easier in the morning, you are probably a lark, if you are better at doing these later in the day, you are probably an owl.

#### How many hours do I need to sleep?

There is no perfect number of hours that we need to have enough sleep. However the National Sleep Foundation recommends that we have between 7 to 9 hours every night. Over the last 50 years sleep duration has decreased by 1.5 to 2 hours per night, per person.

"One in three Britons suffer from poor sleep, with stress, computers and taking work home often blamed for the lack of quality sleep."

### What influences sleep?

#### Body weight

Some studies have shown a link with people who sleep less than 5-7 hours a day were 30% more likely to be overweight or were obese that those who achieved more hours.

Why – it is believed that sleep deprived people have reduced levels of leptin, a chemical that makes you feel full and increased levels of ghrelin, a hunger-stimulating hormone. As a consequence, people consumed more calories and also had a preference for higher calorific foods – all resulting in weight gain. A lack of sleep can also make one feel stressed during the working day, it is possible for this reason, that again, more 'comfort' foods are consumed, often these are higher in calories.

However it is not just sleep depravity, it appears that also too much sleep (more than nine hours) can also have a negative effect on body weight.

Another factor is that both a lack or sleep and even too much sleep can make one feel tired resulting in less physical activity and hence expending less energy (calories).

#### Healthy mind

Although some people claim that they feel rested on just a few hours sleep a night, research shows that people who sleep for a short amount don't perform as well on mental tasks as do people who get closer to 7 hours of sleep a night. A lack of or too much sleep interferes with memory, learning, attention and mood. Daytime sleepiness can result in accidents and errors both in and out of work.

Why – adequate sleep restores us emotionally, mentally and physically. Adequate sleep facilitates learning, helps you concentrate and retain information.

#### Caffeine

The main effects of caffeine takes about 4 hours but to wear off completely can take 6-8 hours or more. Caffeine, although some people think they have a good nights sleep with it, actually interferes with sleep by increasing light sleep and shortening of deep sleep time, as well as more frequent awakenings.

#### Alcohol

This has an initial sedating effect, but it can prevent rapid eye movement sleep and the deep stages of sleep. Excessive alcohol also increases the risk of Obstructive Sleep Apnoea

#### Large meals

Having a heavy meal before bed (particularly large portions based on refined carbohydrates and fat) can cause food to literally 'sit around' in the digestive system causing indigestion.

#### Night-time exercise

Daytime exercise is associated with improved night-time sleep, but evening exercise can delay the release of melatonin (the hormone that makes you sleepy) that makes you fall asleep at

night. The National Sleep Foundation recommends leaving three hours between exercise and sleep, if possible.

#### Stress

Taking our worries to bed will stop us from getting a deep sleep due to our thoughts and emotions. This also does not allow our blood pressure to drop to a relaxed state during sleep.

#### LED lights

Some expert opinions suggest that the invention of electric light has altered our sleep patterns over the last century. In particular, the widespread use of LED lights, which we rely on to view smart phones, tablets, televisions and laptops screens, is disrupting our sleep. These studies have been observational ones and therefore there appears to be an association until further evidence proves otherwise. However working after working hours in the late evening does not provide you with the opportunity to unwind and relax and therefore it is possible that we are taking our 'work worries' to bed with us.

#### How to improve sleep:

#### Bedtime ritual

This teaches the brain to become familiar with sleep times and wake times – remember the 'body clock" which regulates our circadian timer (the pattern of our sleep and waking). A 'ritual' can programme the brain and this 'internal clock' to get used to a certain routine.

The Royal College of Psychiatrists advise that going to bed and getting up in the morning at the same times every day and avoid naps through the day can help avoid sleep problems (this also relates to our 'body clock').

#### **Relaxation exercises**

Just a few minutes of stretching to help relax the muscles can help initiate relaxation and hence a better sleep – but don't overdo it as this will have the opposite effect creating wakefulness.

#### Alcohol and caffeine

All too common. Aim to set yourself a time that you stop drinking caffeinated drinks and avoid as much as possible excessive alcohol – remember the limit is 14 units for women and men a week. Spread throughout the week with at least 2 consecutive alcohol free days.

#### LED lights

Also, this is observational and is yet to be proven, concentrating on information provided though laptops, computers etc does not allow our mind to destress and relax. As much as possible try to limit using LED just before bedtime – in some cases in may just be not using a tablet in bed just before switching off the light.

#### Sleep diary

A sleep diary can be a really useful way to uncover habits or experiences in your day that contribute to poor sleep.

# Ask yourself some of the following questions to identify reasons for not sleeping well, such as:

- 1. How much alcohol did you have before and after 5pm?
- 2. Has anything made you anxious or stressed?
- 3. Did you take any naps during the day or evening?
- 4. Did you do any vigorous exercise (eg running/gym) near bedtime?
- 5. Did you eat processed foods that are high in sugar, fat, salt and other additives and preservatives that may be over stimulating?

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