

SICK AND TIRED OF FEELING SICK AND TIRED??

"To sleep, perchance to dream, aye, there's the rub" Shakespeare

"Sleep that knits up the ravelled sleeve of care

The death of each day's life, sore labour's bath

Balm of hurt minds, great nature's second course,

Chief nourisher in life's feast." Shakespeare, Macbeth.

"When you have insomnia, you're never really asleep, and you're never really awake"

from the film Fight Club based on a novel by Chuck Palahniuk.

"There is a gulf fixed between those who can sleep and those who cannot. It is one of the great divisions of the human race." Iris Murdoch, Nuns and Soldiers.

"There are twelve hours in the day, and above fifty in the night." □□□□ Marie de Rabutin--Chantal

Famous insomniacs include Winston Churchill, Napoleon Bonaparte and Marilyn Monroe.

A workshop in Paris in February, 2001, entitled "Open your eyes to sleep" noted that there is an enormous gap between the number of sufferers with insomnia and those actually treated: it is under diagnosed and under treated. One German expert suggested that only 50% of people with insomnia are actually diagnosed.

Physicians tend to trivialise insomnia.

Insomnia is the experience of inadequate sleep: whether deficient in quality or quantity, or both.

It may involve:

- difficulty falling asleep
- difficulty staying asleep: frequent waking/ early waking
- unrefreshing sleep

It is estimated that up to a third a patients seen by GPs have occasional difficulties sleeping with up to 10% experiencing chronic sleep problems. Prevalence increases with age and is more common in women.

Generally speaking, insomnia encompasses sustained problems in falling asleep, staying asleep, or having non-restorative sleep for over one month. Someone who takes 30 minutes or more to fall asleep at night, or is up in the middle of the night for 30 minutes or more (this may be all at once or in short episodes) 3 times a week may be said to have a sleep problem that needs attention.

However, there is considerable variability. Some people think that we have fixed on 8 hours of sleep at night as an arbitrary figure to which we adhere blindly, and that if we consistently have less then we feel deprived even if no harm is being done.

As Dale Carnegie said,

"It's the worry that gets you, not the lack of sleep."

That may be true up to a point, for mild, intermittent insomnia, but persistent lack of sleep is a very different situation.

Stephen King, in his novel, "Insomnia", vividly describes the peculiar kind of torture that insomnia brings:

"He was tired, yes-more deeply and fundamentally tired than he had ever been in his life-but being tired and being sleepy, he had discovered, were sometimes poles apart. Sleep, that indiscriminating friend, humankind's best and more reliable nurse since the dawn of time, had abandoned him again."

"Then, shortly after three o'clock, that pleasant drowsiness began to disappear. It did not go with a champagne-cork pop but rather seemed to ooze away, like sand through a fine sieve or water down a partially clogged drain."

"That creeping sensory numbness and the erosion of his decision-making capabilities were not the only problems he had come to associate with insomnia; his short-term memory had also begun to slip."

"By four o'clock Ralph's bed had become hateful to him, as it always did when he realized he could put it to no good use."

"I'm so tired I can't remember my own name."

"I'd go to bed at ten, fall asleep around four, get up at seven, and drag myself through the day feeling like a bit player in someone else's nightmare."

"That long Thursday morning and even longer Thursday afternoon taught Ralph Roberts a valuable lesson: not to sneer at three or four hours' sleep a night simply because he had spent his entire life under the mistaken impression that he had a right to at least six and usually seven. It also served as a hideous preview: if things didn't improve, he could look forward to feeling like this most of the time."

"He went into the bedroom at ten o'clock and again at one, hoping for a little nap- even a catnap would do, and half an hour would be a life-saver- but he could not so much as drowse. He was miserably tired but not in the least sleepy."

"Ralph's sleep had shrunk to roughly three hours and he had begun to feel quite a little bit like something on a slide under a microscope."

"There were times (usually sitting in the wing-back chair at four-thirty in the morning) when he swore he could actually feel his brains draining."

There is a film called Insomnia due for release in which Al Pacino plays a cop who arrives in a northern Alaskan town during the period of the midnight sun, so that he experiences perpetual daylight. This wreaks havoc on his body clock and prevents him from sleeping.

As the story develops, events cause him increasing psychological pressure, which in combination with his lack of sleep, have profound effects upon his decision-making ability. The film portrays his insomnia as a physical representation of his psychological struggle.

There is no doubt that we underestimate the damage impaired sleep can do. Paul Martin, in his recent book, 'Counting Sheep', says that:

'Sleep deserves much more attention in science, medicine, education, social policy and, most of all, in our everyday lives.'

As he remarks, sleep is taken for granted, 'an inglorious example of familiarity breeding contempt.'

It is only when we lose the ability to sleep, that we appreciate its value: after all, we are likely on average to spend a third of our lives asleep, around 25 years!

We spend more time sleeping than on many other activities, and unlike other activity, we cannot 'save time' by getting someone else to do it for us, and if we cut down too much, the effect on our waking hours can be disastrous.

As many car accidents are caused by tiredness as by drink driving. We can do without food for longer than we can do without sleep.

Modern society as a whole is chronically sleep-deprived. Since Edison gave us light 'on tap', our waking hours are no longer tied to natural rhythms of daylight and darkness.

The margins are blurred and our 24/7 world puts us on a treadmill it can be hard to escape. However, sleeplessness is by no means a new problem. Medical literature from the 19th. Century shows that sleeplessness and 'stress' were recognised problems.

People with chronic illness encounter extra difficulties:

- increased stress

- pain
- other symptoms
- medication-related problems
- altered sleep patterns

What is normal sleep?

The first question we need to answer is how much sleep do we really need?

Sleep researchers call people who sleep less than 6 hours a night 'short sleepers' and those who sleep 9 hours, 'long sleepers'; 8 hours is the usual quoted average, although it is more likely to be 7 and a half.

We all know of people who need little sleep and some who need a lot. Perhaps this is just an inborn thing. I know that my three children all differ in their sleep patterns and needs and this dates right back to during the pregnancy, including their sleep-wake cycles.

The amount of sleep needed doesn't vary with age as was previously thought, but the *pattern* of sleep does change. Older people tend to sleep more lightly and are more likely to be disturbed by environmental factors that younger folk might sleep through untroubled.

There is a gradual decline in delta sleep, the deepest sleep most associated with growth and bodily recovery. Some older people may have hundreds of short awakenings at night, each lasting only 15 seconds or less. This may feel as if all night has been spent awake.

The sleep-wake cycle is complex and varies considerably from person to person. It can sometimes be possible to trace strong or weak sleep systems through families, but that doesn't necessarily mean insomnia is genetic.

During sleep, brainwaves differ from those whilst awake. Predominantly, instead of beta waves or alpha, made when the eyes are closed and you are relaxed, there are slower, bigger waves known as delta and theta waves.

There are basically 2 types of sleep: REM and non-REM (NREM): dreaming and non-dreaming.

REM stands for rapid eye movement, because our eyes tend to move about a lot in this stage. Usually, just before dreaming starts, our brain relaxes all our muscles so that we are practically paralysed. So any movements we make during dreaming tend to be quite small. (We often see cats and dogs twitch during their sleep).

Experiments with animals that have blocked out this muscle relaxation have shown that animals act out their dreams.

This can also happen in people in whom the inhibitory message is malfunctioning: they may move about violently during their dreams, and may even hurt themselves: this is known as REM behaviour disorder and it can be treated.

In most people, REM sleep happens about every 90 minutes throughout the night, but the first period is very short, about 5 minutes, the second about 10 minutes, the third, 15 and the final dream may last between 30 minutes and an hour. If we sleep 6 hours, we will have 4 dreams, but most are forgotten, unless we wake up from them.

NREM sleep is either Stage 2, the most frequent type or Stage 3 and 4, delta sleep, which is much deeper. There may be some simple thinking, but it tends to be fragmentary.

As we go to sleep, it is like going down stairs.

In Stage 1, the transition between waking and sleeping, we may have drifting thoughts for a few minutes, but don't feel asleep.

As we get into Stage 2, our brain puts out patterns called sleep spindles and K-complexes.

Then we go into Stage 3 and 4. changing between stages occurs gradually, with one stage blending into the next.

The time to the end of the first REM sleep is referred to by sleep specialists as the first sleep cycle. There are 4 to 6 sleep cycles per night depending on how long we sleep.

Delta sleep, the deepest, seems the type that facilitates bodily recovery; people deprived of it complain of malaise, nothing seems to function quite right.

Stage 2 sleep is less intense but still involved in restoring bodily wellbeing.

REM sleep is more concerned with mental wellbeing.

During sleep, the body is busy, and there are numerous changes according to the circadian rhythm, with fluctuations in hormone levels, such as cortisol, as well as changes in heart rate and breathing.

During delta sleep, blood flow is mostly directed to muscles, but during REM sleep, as much as a quarter of all blood circulating goes to the brain. At the onset of delta sleep, there is the largest spurt of growth hormone in the whole 24-hour cycle; this hormone is not only used for growing, but also for tissue repair.

Other physiological reactions include sexual arousal during REM sleep: men (usually unknowingly) experience an erection (from children to those in their eighties, and even those who are impotent whilst awake); these occur regardless of the context of the dream. Women also experience similar arousal.

What happens when we miss out on sleep?

Occasional nights of sleep being disrupted, perhaps because of anticipation of the following day (a new job, a holiday etc.) are not too bad for the body, especially if the excitement of the next day's activities counters the effects.

Monotonous tasks may be risky, and reaction time is slowed, creative thinking might be blurred, but the effects are not usually critical. The effect is more noticeable in boring tasks but in an emergency, adrenaline keeps us going.

Missing sleep chronically is a different matter.

“The insomnia had begun to pervade every aspect of his life, the way the smell of frying garlic on the fifth floor will eventually pervade an entire apartment building.” Stephen King, *Insomnia*.

Lack of sleep is cumulative.

Even small losses over a period of time have major impact on attention, memory, mood, thinking ability, behaviour, and of course, safety.

“Insomnia is much more than losing a few nights' sleep” Dr. Michael Bonnet, sleep researcher, 1995.

People with chronic insomnia have increased metabolism (compared with normal subjects sleep deprived whose metabolism slow down). They tend to experience increased anxiety and agitation, whereas normal people with a few nights' disturbed sleep become lethargic and less responsive.

Normal sleepers don't have trouble catching up on their sleep, but insomniacs do.

At the 2001 Paris workshop on sleep, one American expert stated that poor sleepers are more than twice as likely as good sleepers to have ischaemic heart disease in the first six years after experiencing sleeping difficulties, and they are about three times as likely as good sleepers to develop frequent headaches.

The risk of depression is four times greater in insomniacs than in normal sleepers and 25-40% of insomniacs experience significant anxiety.

The abuse of alcohol and other substances is also more prevalent in insomniacs.

A recent study, published in the journal *Sleep* in August, 2002([\[1\]](#)), found that frequently not only were the patients experiencing night-time symptoms (sleep disturbance, environmental sensitivity) but also day-time problems such as difficulties thinking and sleepiness.

Those with depression-related insomnia experienced more severe symptoms, with a correlation with the number of hours slept. The authors concluded:

“Nighttime and daytime symptoms need to be assessed together when measuring insomnia severity.”

In an online interview on insomnia, Dr. Rosenberg, a sleep expert, echoed this when he stressed that “sleep and wake is a 24-hour cycle and you have to examine, not only what's going on at night, but what's going on in the daytime.” ([\[2\]](#))

“The longer insomnia lasts, the weirder it gets.” Dr. Tom Roth, director of Henry Ford Hospital Sleep Disorders Center.

[1] Moul DE, Nofzinger EA, Pilkonis PA, Houck PR, Miewald JM, Buysse DJ. Sleep 2002 Aug 1; 25(5): 553-63 Symptom reports in severe chronic insomnia.

[2] The whole interview is available at: http://talkaboutsleee.com/print_versions/disorders/insomnia/Prinsomnia_interview.htm