



# a good night's rest

HAVE YOU BEEN COUNTING TOO MANY SHEEPS BEFORE YOU FINALLY SLIP AWAY INTO A DEEP SLUMBER? WE SPEAK TO DR KEVIN SOH OF EAR, NOSE & THROAT PARTNERS TO LEARN MORE ABOUT THE ACTIVITY WE SPEND A QUARTER OF OUR LIVES DOING.

by Fiona Chen

## What is the recommended amount of sleep per age group?

Generally, the amount of sleep required decreases with age.

During infancy, 12 to 14 hours of sleep is required. This is because the brain is still developing and the production of growth hormones during sleep facilitates physical and mental development in the first few months of life.

During childhood, 8 to 10 hours are required. The child is still growing physically and psychologically, and sleep is essential to this development.

During adulthood, 7 to 8 hours of sleep is needed to maintain psychological and mental health.

The elderly require less sleep (6 to 7 hours), although the reason isn't clear yet but presumably because their bodies have less repair functions to perform.

## What are the key factors in ensuring a good night's rest?

Factors that improve sleep (sleep hygiene) include habits and environmental modifications that facilitate the induction and maintenance of sleep.

Environmental factors include comfortable temperatures, lack of noise pollution and of course, a comfortable bed.

Behavioural factors include going to bed at the same time every night, to use the bedroom only for sleeping (and not watching TV, eating, studying, etc). Avoid stimulants like coffee, horror movies, exercise just before sleeping.

## How do you classify a deep or light sleeper? And what sort of advice do you have for the two types?

Light sleep is caused by factors that interfere with induction and maintenance of sleep. This results in poor sleep quality.

These factors include environmental, psychological, and physical factors.

Environmental factors include excessive noise, uncomfortably high humidity and temperatures.

Paradoxically, an excessively quiet environment may cause some people with tinnitus (ringing sound in the ears) to experience poor sleep quality. The tinnitus tends to be louder in a quiet environment to the point where patient starts to experience anxiety and irritability. The solution to this is to avoid excessive silence in the sleep environment by playing sounds with "white noise". White noise, like white light, contains a very broad spectrum of sound frequencies. Examples include the sound falling waterfall, rain and so on.

Psychological factors, like stress and depression, result in the release of "fight, flight, and fright" hormones (like cortisol, adrenaline, noradrenaline). These hormones cause brain arousal and impair sleep.

Physical factors like sinusitis, asthma, sleep apnea, acid reflux, will impair the body's ability to go into deep sleep. The patient has little choice but to be a light sleeper.

#### What hinders sleep more – external disruptions such as noise or mental disruptions such as stress?

Extrinsic factors like noise and hot weather may cause poor sleep quality initially. But over time, the body adapts and the offending factor becomes less of an aggravating factor. For example, people living near a busy road will initially have very poor quality of sleep. Over time, the sleep quality improves as the body adapts. Unfortunately, this adaptation is never complete, and a low level of sleep deprivation will continue to persist.

In contrast, intrinsic factors affect not only sleep quality, but also affect the body's adaptive response.

#### Apart from dependence, what sort of problems would sleeping pills cause in the long run?

Although sleeping pills may cause dependence, where increasing dosages are required to produce the same beneficial effects on sleep,

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there is a limit to how much sleeping pills can cause dependence. Dependence will occur after prolonged use of sleep pills, but it reaches a point where no further dependence can take place, and no further dosage increases is required.

Just as not everyone who indulges in alcohol becomes an alcoholic, similarly, not everyone taking sleeping pills becomes dependent on it, even when taken for long periods at intermittent intervals.

A normal person taking sleeping pills runs into very little danger if the correct dosage and duration are used. However there is a group of people who must avoid sleep pills even in low dosages. Sleeping pills can suppress the respiratory drive. People who have sleep apnea or lung disease depends very much on their respiratory drive to maintain their blood oxygen levels. Sleeping pills will suppress the respiratory drive to the point where blood oxygen levels may fall to dangerous levels, and precipitate abnormal heart rhythms and sudden death.

#### There is a popular saying you can never repay a sleep debt. True or false?

False. If you miss a night's rest, your sleep pattern the next night will have a slightly different sleep architecture than on a normal night. The next night's sleep will consist of more compensatory REM (rapid eye movement) sleep and deep sleep to make up for the deficit the previous night. The increase in REM and deep sleep will induce more dreams. It is not true that the damage from one night of sleep deprivation cannot be reversed or repaired.

It is only when sleep deprivation is chronic and on a long term basis that mental (anxiety, depression) and physical harm (hypertension, weight gain) will arise.

#### Power naps: Beneficial or may cause difficulty sleeping at night?

Power naps are beneficial in improving physical and cognitive performance in the later part of the working day. These power naps should range in duration from 15 to 30 minutes. If power naps last longer than 30 minutes, it may interfere with sleeping at night.



photos by Dr Kevin Soh

Doctor Kevin Soh graduated in 1987 from the National University of Singapore (NUS) before attaining his Fellowships from the Royal Colleges of Edinburgh and Glasgow in 1992. He went on to further to train in the United Kingdom for four years thereafter. Apart from general Ear, Nose and Throat (ENT) work, he also has a keen interest in the areas of allergies, sinus diseases, sleep apnea, and snoring.

He served as a consultant in the National University Hospital and was actively involved in undergraduate and postgraduate training.

In February 2000, he started his own practice in Gleneagles and Mount Alvernia Hospital and in February 2006, moved his practice to Mount Elizabeth Hospital.

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