

THE SCIENCE OF SLEEP

SLEEP

Sleep is universal. It is so important that it has been preserved by evolution. Sleeping is incredibly risky for animals so most sleep with half their brain. Being able to sleep has been evident in organisms preceding the emergence of humans.

BENEFITS

Through sleep every single organ becomes optically enhanced. Sleep enriches various functions in our body such as being able to memorise, learn and make logical choices. Moreover, sleep is essential for strengthening our immune system and regulating our appetite.

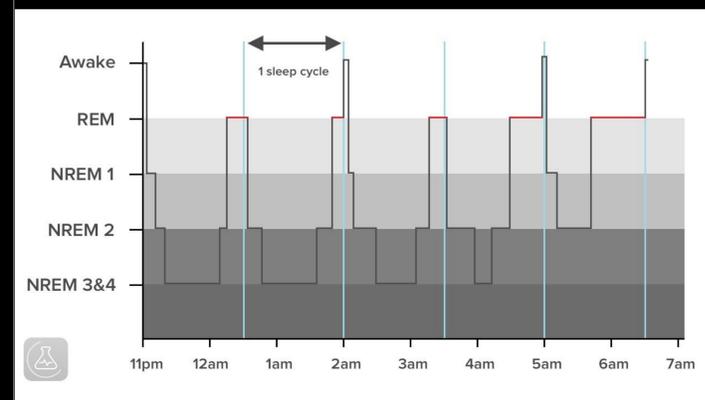
CONSEQUENCES

Routinely sleeping less than six hours can have detrimental effects such as increasing the risk of cancer by 50% and increasing the risk CVD due to coronary arteries becoming blocked. A lack of sleep can also contribute to psychiatric conditions such as suicidality and depression.

DREAMS

There are 2 types of sleep: NREM which is the non-dreaming state and REM which is the dreaming state. Through extensive research, it is apparent that dreaming is beneficial to all organisms that experience it. Yet only mammals and birds have evolved to experience REM sleep.

The amount of time that different species spend in REM and NREM varies- in humans the NREM-REM cycle length is approximately 90 minutes. The hypnogram shows the rotation between REM AND NREM.



An investigation in REM sleep has shown that the visuospatial regions, motor cortex, the hippocampus, the amygdala and cingulate cortex are 30% more active than in the wake state.

DRUGS

Sleeping medications sedate you rather than helping you to fall asleep. These pills have a similar effect to alcohol as it functions in the same area of the brain. When an individual stops using sleeping pills they suffer from rebound insomnia where their sleep is even worse than initially. When the medication is stopped there is increased insomnia therefore taking sleeping tablets lowers your quality of sleep.

DISEASE

Numerous researches conducted on sleep has shown that diseases such as obesity, dementia, diabetes and cancer have a causal relationship to a lack of sleep. In the case getting diabetes: the less you sleep, the more you eat and eventually your body is unable to control the concentrations of sugar in your blood. Therefore not only do you become overweight, there is a significantly higher risk of developing type 2 diabetes.

TIPS

Sleep is an important human need so below are a few tips to get a healthy night sleep.

- ❖ Avoid have any medications that will disrupt your sleep patterns
 - ❖ Have a fixed sleeping schedule
 - ❖ Don't have caffeine or alcoholic drinks before you go to sleep. This is because the effects of caffeine can last up to eight hours which makes it harder to fall asleep and alcoholic drinks decreases REM sleep.
 - ❖ Try not to take naps in the afternoon as it makes it harder to fall asleep at night
 - ❖ Don't eat large meals late at night as this can cause indigestion
 - ❖ It's good to exercise for at least 30 minutes every day to get good quality sleep
 - ❖ Getting natural sunlight exposure for at lest 30 minutes every day is beneficial for a healthy sleep
- ESSENTIALLY FOR AN OPTIMAL HEALTH PRIORITISE SLEEP!**