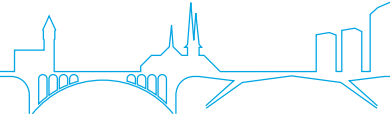




The Sleep

On average, humans spend one third of their lives sleeping



Sleep is a fundamental element which brings our organism a mental and physical recovery.

In fact, studies on sleep deprivation on humans have shown the development of hallucinations and behaviors close to psychosis after 3 days without sleep.



Usually, every individual needs 7 to 9 hours of sleep per night to feel rested (WHO source) with variations depending on the person (5h of sleep for Napoleon versus 10H for Albert Einstein), depending on the day of the week (6h34 of sleep per night on weekdays versus 7H10 on weekends; March 2019 Bulletin Épidémiologique Hebdomadaire study) or even depending on the gender (slightly shorter duration for men).

Sleep organization

Sleep is classically split into 3 to 6 cycles. Each cycle lasts around 90 minutes, is composed of slow wave sleep, deep sleep and REM sleep and is organized in 5 stages:

- Stage I or sleep phase which marks the transition between wakefulness and sleep, and which often lasts less than 20 minutes;
- Stage II or light slow wave sleep phase during which sleep sets in, but the person remains extremely sensitive to various sensory stimuli such as noise.
This stage is the longest (more than half of the total sleep time);
- Stage III and IV or deep sleep phase, commonly called "restorative sleep" because it is the opportunity for the body to set up cell repair and growth processes. During this stage, phenomena such as sleepwalking and night terrors may occur;
- Stage V or paradoxical sleep. It is called paradoxical because despite intense brain activity (dreams, nightmares), the muscles are completely relaxed. It is a key stage in the memorization process.

Sleep pathologies

They can take different forms:

- Dyssomnias
 - They include insomnia, sleep apnea syndrome and restless legs syndrome.
 - These dyssomnias are characterized by poor quality, fragmented or insufficiently long sleep.
 - Insomnia can take the form of difficulty falling asleep, multiple nighttime awakenings or early awakenings. If it occurs more than 3 times a week, then the subject has a sleep disorder.
 - Sleep apnea syndrome manifests through repeated breathing pauses (apneas) lasting over 10 seconds and often associated with snoring.
 - Restless legs syndrome is revealed by unpleasant sensations in the legs at night.
- Hypersomnias: the best known is narcolepsy, which is characterized by irrepressible urges to sleep any time of the day.
- Parasomnias characterized by behaviors occurring during sleep (nightmares, teeth grinding, somniloquy, etc.)

Health consequences

At short and medium terms, the subject suffering from bad sleep can present memory and concentration issues, a mood alteration (sadness, irritability, aggressiveness...) generating a decrease in performances.

In addition, drowsiness with a drop in vigilance may also cause accidents.

In the long run, a prolonged alteration of sleep may lead to serious biological consequences, notably the development of cardiovascular diseases (hypertension), weight gain or obesity, diabetes, infections and even cancers.

Causes

Sleep can be altered by multiple causes, namely:

- Age: the sleep duration of the elderly subject (> or = 65 years old) gets shorter with a sleep often split by more frequent and longer awakenings;
- Stress;
- Depression;
- Excitants (coffee, tea and other caffeine drinks);
- Alcohol consumption;
- Work: a job with atypical hours, night work, a heavy mental workload or frequent business trips over several time zones are all factors likely to disrupt the secretion of melatonin (sleep hormone) and therefore sleep;
- A diet that is too rich and too sweet in the evening;
- An unfavorable environment (room temperature too hot, lack of darkness, loud noises, etc.)
- Prolonged and late exposure to blue light (smartphones, computer screens or television).

Tips to promote quality sleep

- Be physically active at least 4 hours before bedtime;
- Adopter une bonne hygiène alimentaire;
 - Adopt a healthy diet: Avoid excitants (coffee, tea, vitamin D.) at least 6 hours before bedtime;
 - Stay away from alcohol;
 - Favour a diet low in sugar and fat;
- Create a sleep conducive environment; - Quiet
 - Aerated room, temperature between 18 and 20 degrees;
 - Avoid working, watching television or staring at a computer screen in bed, as well as falling asleep anywhere but in bed;
- Observe regular schedules (fixed bedtimes and wake-up times);
- Wait for the first signs of fatigue before heading to bed and do not force things;
- Practice bedtime rituals to relax: breathing/sophrology/reading.

Should there be little to no improvement in the quality of your sleep despite these recommendations, contact your doctor for further alternatives.

