Sleep Myths and Expectations

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What is Sleep?*

- Sleep is essential and universal
- It is a reversible state of consciousness in which most senses are disengaged
- Generally, a lack of responsiveness to the environment follows

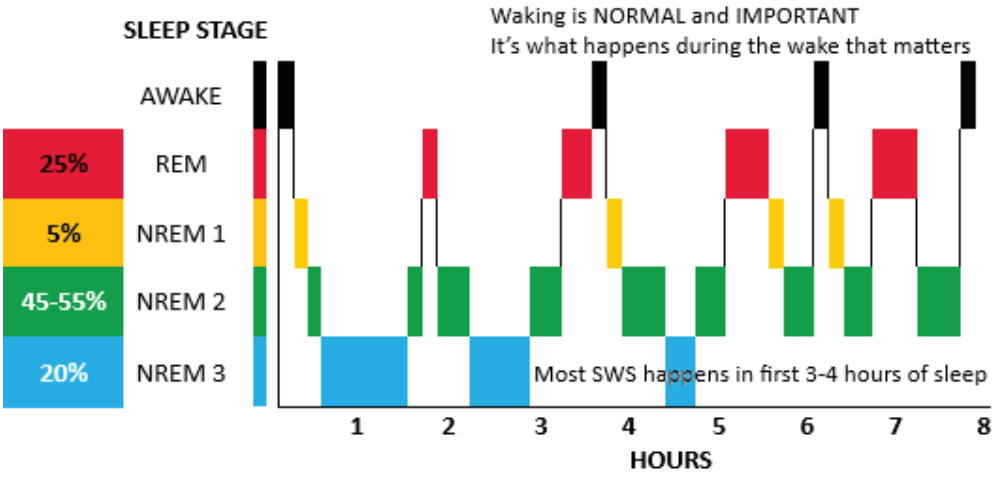
* *adapted from Kapsi, S et al. (2020). The Role of Sleep and Impact on Brain and Learning, iJES; 8(3)59-68*

So-Called "Good Sleep" is:

- Sleeping through with no wakes
- Spending most of the night in Deep Sleep
- Believing that Dream Sleep is Deep Sleep when it is similar to an awake state
- Always waking refreshed

THESE STATEMENTS ARE INCORRECT AND ALL ABOUT EXPECTATIONS!

Young Adult Sleep Cycles



- We cycle through all the stages of sleep every 90 minutes (with a range of 70-100 minutes). The diagram above is called a hypnogram and describes the different sleep stages.
- We start the night in very light sleep called Non Rapid Eye Movement 1 (NREM 1 or N1). In the hypnogram above, NREM 1 is represented by the yellow boxes. When we are young, we generally spend around 5 percent of the night in this transitional sleep, where it is often difficult to assess being awake or drifting off.
- Our dominant sleep is relatively light where we move, wake and check our environment. This stage is called Non Rapid Eye Movement 2 (NREM 2 or N2), represented in the hypnogram by the green boxes. Spending most of the night in light sleep probably has an evolutionary basis, making us able to respond quickly to environmental dangers.
- After approximately 25-30 minutes of sleep, we descend into Slow Wave Sleep (SWS), Deep Sleep or Delta Sleep. This stage of sleep is called Non Rapid Eye Movement 3 (NREM 3 or N3). This stage is represented by the blue boxes in the hypnogram. Only 20 percent of the night is spent in Deep Sleep where the brain rests but the body can be active. Children secrete a large amount of Growth Hormone (GH) during NREM 3 and adults have reduced GH to repair damaged cells. Most of our SWS occurs in the first third of the night whatever time we go to sleep.
- SWS is followed by NREM 2 sleep and then we go into Rapid Eye Movement sleep (REM) – Dream Sleep.

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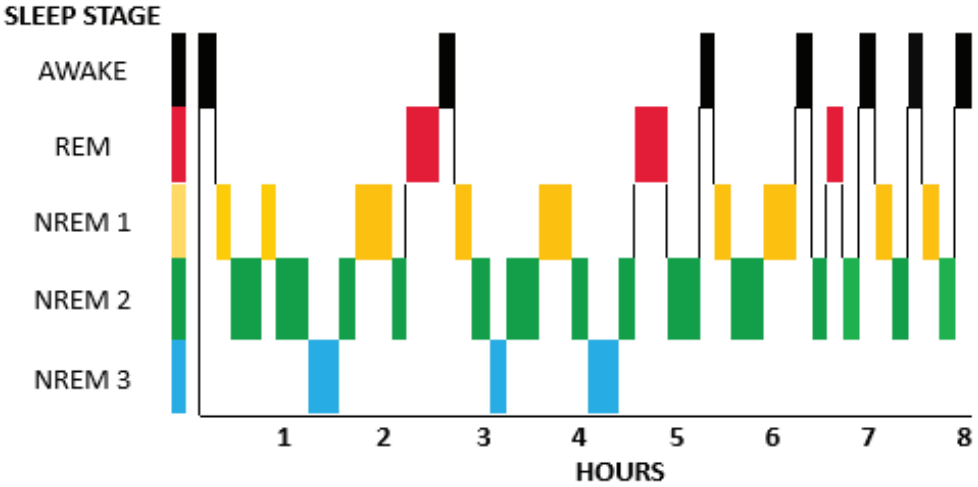
- In REM sleep, represented in the hypnogram by the red boxes, our eyes have rolling eye movements, hence the name. The brain is very active and almost awake but the body is in an atonic or a semi-paralysed state to prevent us from getting up and acting out our dreams.
- A young healthy person may have 2-3 wakes per night but they may not be aware of them. Waking is normal and important as we need to change body position and check our environment.

Sleep Cycles at 70 years plus



- As we age, our sleep changes as does everything else, especially in terms of our sight and hearing.
- With increasing age, our sleep is characterised by an increase in the number of wakes as represented by the black boxes in the hypnogram above. There is a huge increase in the amount of very light sleep (yellow) and we cycle predominantly between very light and light sleep (green). Deep Sleep (blue) is also reduced, as is our ability to produce the GH secreted during SWS.
- **All of these changes are a normal part of the ageing process.**
- Research has shown how important it is to be active mentally and physically with increasing age. When older adults keep their fitness up, the prevalence of insomnia is the same as the general population. Exploring your diet and exercise regimen is key to healthy sleep.
- For more advice, see our other brochures on Learning Better Sleep and Relaxation Strategies for Insomnia at www.woolcock.org.au/resources.
- To find out more about our services, go to www.woolcock.org.au/clinic.

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Key Points to Consider Around Sleep

- Most Deep Sleep is in the first third of the night.
- If you are sleep-deprived you will go into Deep Sleep more quickly and you may experience an increase in Deep Sleep.
- We spend most of the night in relatively light sleep (45-55%). This is normal.
- We wake 2-3 times per night which increases to 5-9 times per night with age - we do not usually remember all of those wakes.
- Waking during the night is normal as we need to change our position and check our environment.
- Dream Sleep is similar to an awake state.
- Understanding normal sleep reduces the pressure of inaccurate sleep expectations!

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