

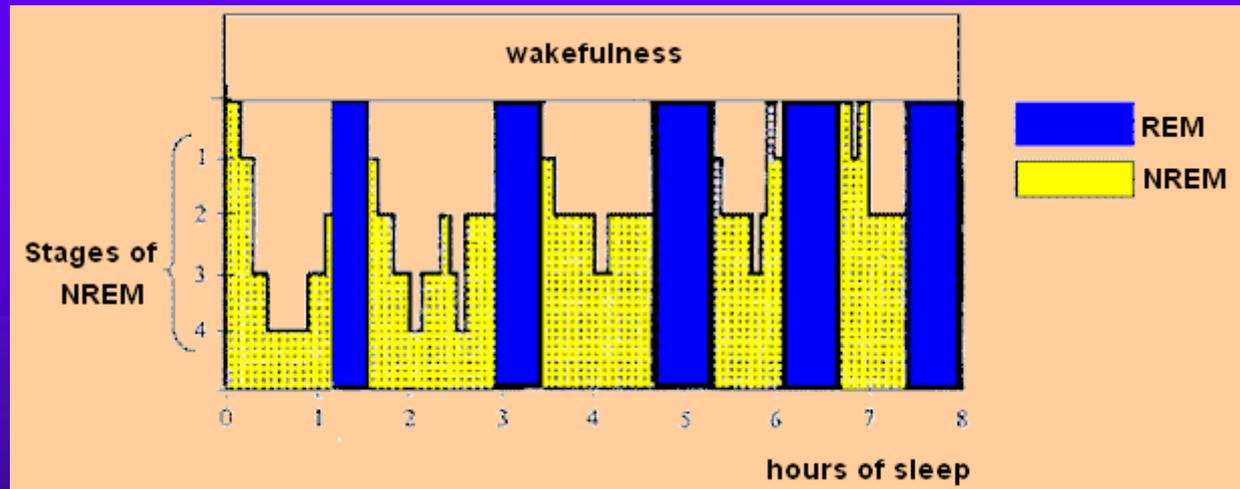
Sleep Disorders

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A typical night sleep





Functions of Sleep

- 1. Conservation of energy (5-25% ↓).**
- 2. Restorative (G.H. ↑).**
- 3. Safety.**
- 4. Social bonding.**
- 5. To dream.**



Normal Sleep

- ◆ Normal sleep consists of 1-4 series of phases of increasing depth (NREM) and REM phases.
- ◆ Each phase has a characteristic EEG.
- ◆ There is a decrease with age in sleep length.



Non REM Sleep

Consists of 4 stages

- ◆ Difficulty of arousal in 3+4 stages.
- ◆ II stage = 45% of sleep.
- ◆ Stage II shows spindles and K complex.

Non REM Sleep

- ◆ Dropping in heart rate.
- ◆ Slowing in respiration.
- ◆ Decreasing in temp.
- ◆ Decreasing in BP.
- ◆ Night terror





REM Sleep

- ◆ Rapid eye movements
- ◆ Penile erection in men
- ◆ Loss of muscle tone .
- ◆ Ease of arousal.
- ◆ Occupies 30% of sleep in adults.
- ◆ Enuresis

Dreams

- ◆ REM sleep dreams : sexual, clear, sleep paralysis, connected to external stimuli easy to be recalled.
- ◆ Nightmares
- ◆ Non REM sleep dreams : No recall(Night terrors).





Normal Sleep

In the first cycle:

- * 15-20 minutes to fall a sleep.
- * Over the next 45 min. one descends to stage 3 & 4
- * After 45 min. after stage 4 reaches the first REM period (REM latency = $45 + 45 = 90$ min.)



As the night progresses:

- * Each REM period gets longer.**
- * And stage 3+4 gets shorter until they disappear.**
- * Further into the night sleep becomes lighter and dreams become more.**



Sleep and age:

- * Nocturnal awakenings ↑
- * Total sleep time ↓
- * Time to fall a sleep ↑
- * Dissatisfaction with sleep ↑
- * Need for daytime naps ↑
- * REM sleep ↓



Sleep Hygiene:

- * **Low light.**
- * **No noise.**
- * **Comfortable bed.**
- * **No caffeine before sleep.**
- * **No large meal before sleep.**



Sleep Hygiene:

- * **Bed only for sleep.**
- * **Go to bed when sleepy.**
- * **Get up if awake after 10 min.**
- * **Regular bedtimes and rising times.**



Thanks