

Sleep and Dreams

First Learning Goal (Begin with the End in Mind): I will know how much sleep is optimal, and why and know what the different stages of the sleep cycle are.

Minds On

- How much sleep did you get last night?
- How much the night before ?
- What do you think is average for you?



How much sleep
do you get?

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Adults seem to need an average of 8 hours sleep

New borns and teens are experiencing high growth periods and need more sleep

Average
Hours of
Sleep
Needed

How Much Sleep Do You Really Need?	
Age	Sleep Needs
Newborns (0-2 months)	12-18 hours
Infants (3 to 11 months)	14 to 15 hours
Toddlers (1-3 years)	12 to 14 hours
Preschoolers (3-5 years)	11 to 13 hours
School-age children (5-10 years)	10 to 11 hours
Teens (10-17)	8.5-9.25 hours
Adults	7-9 hours

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- Sleep uses approximately 1/3 of our life, when we don't get our sleep it has a negative impact.
- Sleep replaces chemicals used while we are awake, we grow while we sleep, we repair damage.
- Lack of sleep causes fatigue, less immunity to disease, hand tremors, irritability and inattention.

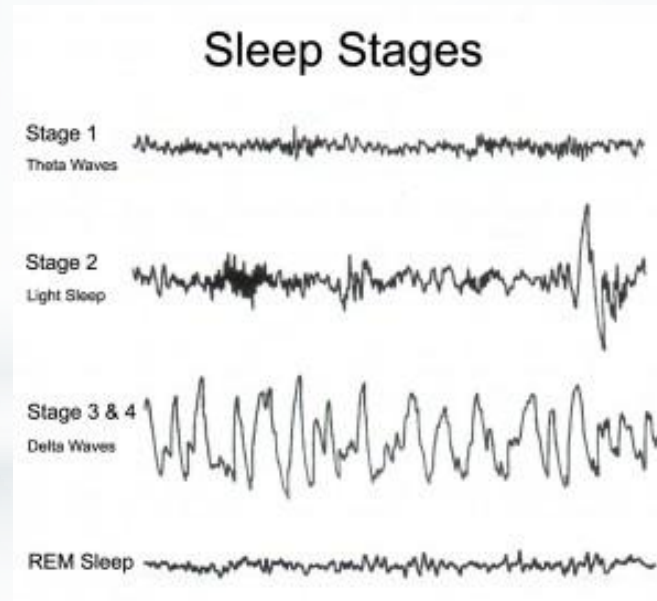
*What's up with sleep?



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What stages do we go through while we sleep?

Awake - Non REM - REM



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What is REM Sleep?

- * It is an **active** period of sleep marked in humans by intense activity in the brain and rapid bursts of eye movements.
- * REM > Rapid Eye Movement > people can see when you are **dreaming** > eyes move back and forth under lids.
- * REM occurs during resurfacing phases.
- * When researchers woke people during this phase they could remember their dreams

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- * they did an experiment
- * they prevented people from experiencing this stage by waking them up regularly
- * the findings? Play from 4:30 to 4:50
- * the subjects became short-tempered and less able to concentrate.
- * Other effects include depression, weight gain, immune system suppression and slower reaction times

How do scientists
know that REM sleep
is important?

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* Electrodes attached to the scalp can record brainwaves, which helps us to know there are 4 stages of sleep we cycle through about every 90 minutes **over and over again all night long.**

In stage 1 we experience a light transitional sleep. This is where drowsiness and sleep begins.



In stage 2 a more stable sleep occurs. Chemicals produced in the brain, block the senses making it difficult to be woken.



Stage 3 is a deep sleep. A growth hormone is released during this stage. Most of stage three sleep occurs in the first third of the night.

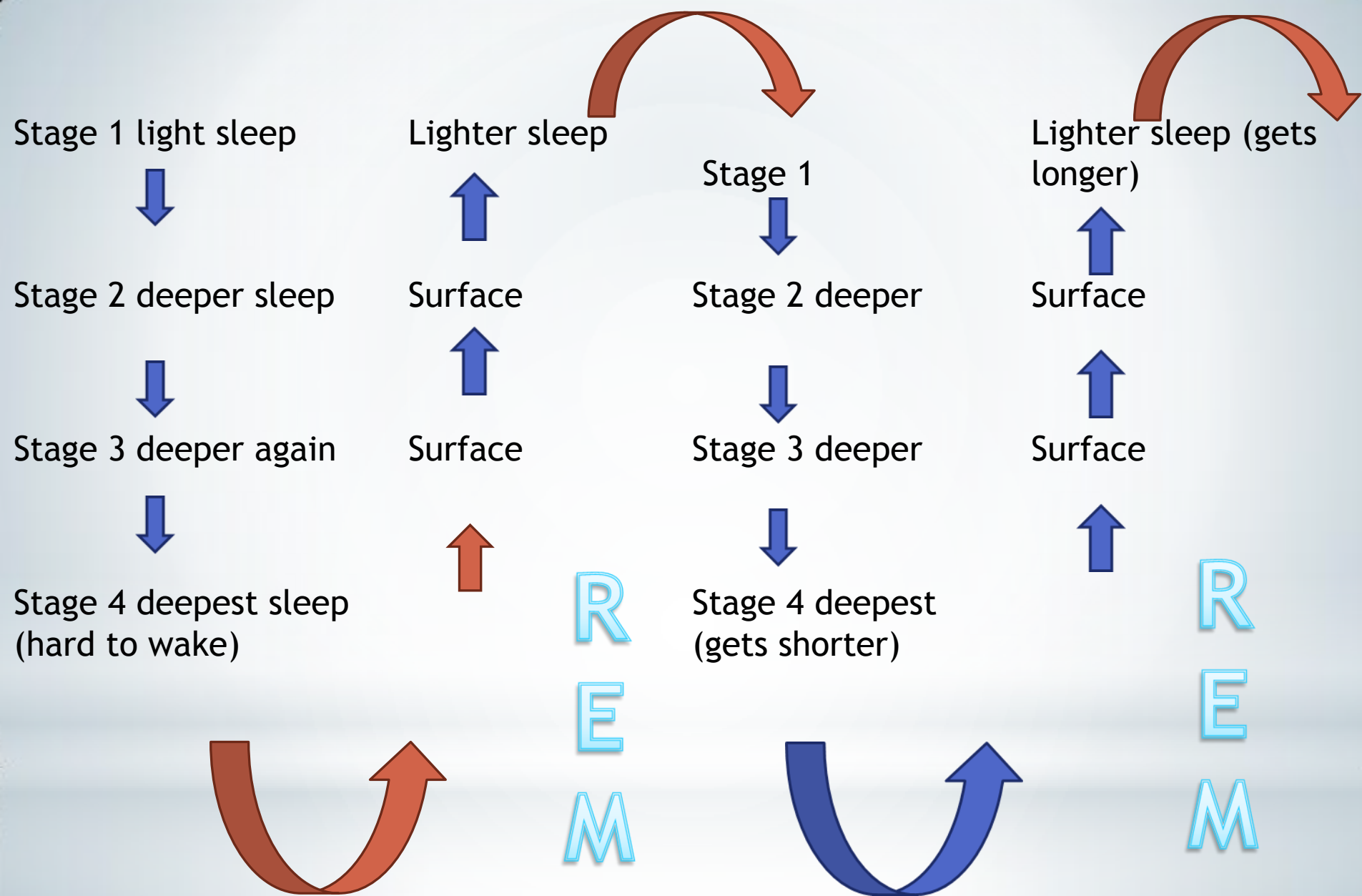


Stage 4 is the REM sleep. **REM sleep revitalizes the memory.** In this stage; **brain activity is very high and intense dreaming is likely to occur.**

Start at
2:17 go to
4:28

*** We sleep in stages**

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- * While we don't all experience the varied states of consciousness, **we do all sleep and we all dream.**
- * According to researchers our dreams vary in length depending on how long that particular REM cycle is.
- * Most dreams are fairly ordinary.
- * Some tend to be negative, it is common to dream about failure or being attacked or losing out.

* Dreams

Second Learning Goal (Begin with the End in Mind): I will know what stage of sleep we dream in, and know the difference between how cognitive psychologists and psychoanalysts explain the function of dreams.

How do cognitive psychologists explain the value of dreams?

- * Cognitive psychologists feel that dreams help us process our daily activities and emotions, and sort things out (we tend to sleep more after stressful days).
- * This makes sense if you think that many dreams are fairly ordinary.

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- * Psychoanalysts believe dreams have **hidden meaning** that are key to understand our drives, fears and so on.
- * Freud attributed the libidinal drive (life force) as the primary creator of dreams that a person's wishes for.
- * Freud also felt that tapping into a person's unconscious would allow a therapist to help a person resolve issues that may be bothering them, that they may not be aware of.

* How do psychoanalysts (Freud) explain the function of dreams?

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