

Sleep

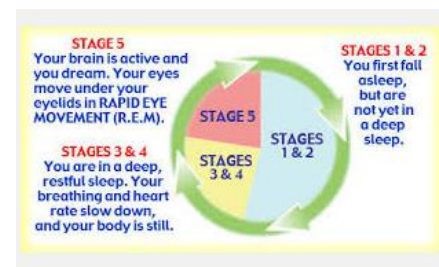


- Sleep as a foundation for function
 - As you sleep, the brain is providing biological maintenance (detoxification)
 - Sleep plays a role in memory and learning
 - Sleep affects mood, motivation, judgment and perception
 - Stages and benefits of sleep (REM - Rapid Eye Movement)
 - Sun releases serotonin while darkness releases melatonin

Stages	Description	Body response
Non REM Sleep	Body repairs/regrows tissue Builds bone/muscle Strengthens immune system	
Stage 1 Sleep transition	Transition stage lasting about 5 minutes	Muscle activity slows down, theta waves
Stage 2 Light sleep	True sleep lasting 10 to 25 minutes	Eye movement stops, heart rate slows, body temperature decreases, brain activity - sleep spindles
Stage 3 / 4 Deep sleep	Difficult to awaken during this stage Bedwetting/sleepwalking are most likely to occur towards the end of this stage	Blood flow is directed from brain to muscles, restoring energy. Hormones are released. Delta waves
REM sleep Dream state	Occurs 70-90 minutes into sleep Restores brain Reset- clears "junk mail" Captures memories allowing learning to take place	Breathing shallows, heart rate/ blood pressure increases, eyes move rapidly. Arm/leg muscles are paralyzed

- Sleep requirements

Newborn to 2 months	12-18 hours
3 months to 1 year	14-15 hours
1 to 3 years	12-14 hours
3 to 5 years	11-13 hours
5 to 12 years	10-11 hours
12 to 18 years	8.5 to 10 hours
Adults (18+)	7.5 to 9 hours
Neurotypical brains	At least 11 hours

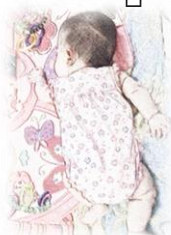


- Strategies to facilitate nature made sleep patterns
 - Avoid glowing box technology 2 hours before bedtime. Eliminate TV in child's bedroom. Place cell phone in another room.
 - Avoid caffeine and heavy meals before bed
 - Deep breathing - as you lie down take deep cleansing breaths allows 7-10 seconds for inhalation/exhalation
 - Magnesium powder calms nerves and relaxes muscles (consult your physician)
 - Warm Almond milk has calcium which helps production of melatonin
 - Rhythmic Entrainment Intervention www.stronginstitute.com
 - Essential oils have a powerful calming effect on the limbic system in the brain
 - Lavender oil promotes relaxation
 - Roman Chamomile can reduce anxiety/restlessness and stress. Aids with insomnia
 - Ylnag Ylang improves quality of sleep
 - Essential oil blends designed for sleep www.youngliving.com



- Reflex patterns

- Abdominal reflex pattern turns to brain off
- Supporting reflex patterns
 - Moro and fear paralysis - these patterns are protective patterns that work against the production of melatonin. Embracing squeeze can calm these patterns
 - Tonic Labyrinth - release of sacrum allowing fluidity with cerebro spinal fluid movement
 - Spinal galant and spinal perezze - when hyperactive there is increased sensitivity preventing efficient natural sleep
 - Flying and landing and landau produce serotonin which can trigger balance through breathing and allow natural release of melatonin at night



Williamson AM, Feyer AM. (2000) Moderate sleep deprivation produces impairments in cognitive and motor performance equivalent to legally prescribed levels of alcohol intoxication. *Medicine*. 57(10):649-655

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<http://www.helpguide.org/articles/sleep/how-much-sleep-do-you-need.htm>

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