

Sleep Matters

Why do we sleep?

- Sleep is essential to our body and mind.
- Restores the body and helps the body recover from work done while awake.
- Restores the brain's ability to organize, process and store information
 - Brain remains active during sleep
 - Brain gets "recharged" and still controls many body functions including breathing.

Development of sleep patterns:

- Primary activity of the brain during early development
- The sleep-wake cycle is regulated by light and dark
 - These rhythms take time to develop which results in the irregular sleep schedule of newborns.
 - Sleep patterns develop in uterus before birth.
 - Sleep-wake rhythms begin to develop at six weeks.
 - By three to six months most infants have a regular sleep-wake cycle.
 - Newborns need 17-18 hours of sleep.
 - 3-4 months old need 15 hours of sleep a day.
 - By the age of two, most children have spent more time asleep than awake.

States of Sleep

- Non-rapid eye movement (NREM) is the key to physical restoration
 - Blood supply to the muscles is increased
 - Tissue growth and repair occur
 - Heart rate, blood pressure and body temperature all fall
 - Important hormones are released for growth and development
- Rapid Eye Movement (REM) is the key to learning
 - Brain is active and dreaming occurs.
 - Body becomes immobile
 - Irregular breathing and heart rates
 - REM sleep is crucial for memory
 - Younger children have a higher percentage of REM sleep

Effects of Lack of Sleep on Adults

Relationship between quality and quantity

- Health problems: linked to obesity, high blood pressure and cardiovascular problems, diabetes and increase in injuries.
- Disturbed sleep is characteristic of mood disorders: depression, anxiety disorders, post-traumatic stress disorder, obsessive-compulsive disorder, schizophrenia, eating disorders, alcohol and substance abuse and Tourette's syndrome