**The Sleep Cycle – Information**

Sleep is an active period in which a lot of important processing, restoration, and strengthening occurs. This is when we consolidate memories.

This is why children—who acquire language, social, and motor skills at a breathtaking pace throughout their development—need more sleep than adults.  
  
**How much sleep do people need?**  
Babies: 18 hours  
Children: 10-12 hours  
Adults: 7-8 hours (some evidence that teenagers need more than this due to growth)  
Elderly: 5-6 hours

**The sleep cycle**

A sleep cycle refers to the period of time it takes for an individual to progress through the stages of sleep

There are five stages of sleep. Stages 1-4 are non-REM sleep, followed by REM sleep

**How long is a sleep cycle?** The first sleep cycle takes about 90 minutes. After that, they average between 100 to 120 minutes. Typically, an individual will go through four to five sleep cycles a night.

Stage one: Light Sleep

During the first stage of sleep, we're half awake and half asleep. Our muscle activity slows down . This is a period of light sleep, meaning we can be awakened easily at this stage, During this stage, many people experience sudden muscle contractions preceded by a sensation of falling.

Stage two: True Sleep

Within ten minutes of light sleep, we enter stage two, The breathing pattern and heart rate start to slow down .and our body temperature begins to drop, eye movement stops and brain waves become slower . The body begins to prepare for deep sleep

Stages three and four: Deep Sleep

During stage three, Breathing and heart rate are at their lowest levels.

Stage four is characterised by rhythmic breathing and limited muscle activity. If we are awakened during deep sleep we do not adjust immediately and often feel groggy and disoriented for several minutes after waking up. It is during this stage that a person may experience sleepwalking, night terrors, talking during one’s sleep, and bedwetting.

http://www.bbc.co.uk/staticarchive/317496a096d6c86486a71d4521994bcd171a6bb3.gifREM sleep

The first rapid eye movement (REM) period usually begins about 70 to 90 minutes after we fall asleep.

Although we are not conscious, the brain is very active - often more so than when we are awake. This is the period when most dreams occur. Our eyes dart around (hence the name), our breathing rate and blood pressure rise. However, our bodies are effectively paralysed, said to be nature's way of preventing us from acting out our dreams and harming ourselves

After REM sleep, the whole cycle begins again.

Deep sleep reduces your sleep drive, and provides the most restorative sleep of all the sleep stages. This is why if you take a short nap during the day, you’re still able to fall asleep at night. But if you take a nap long enough to fall into deep sleep, you have more difficulty falling asleep at night because you reduced your need for sleep.