What is the Sleep Cycle?
Excerpted from *Coping with Sleep Issues*
By Ester R.A. Leutenberg and John J. Liptak, EdD

Sleep is an altered state of consciousness in which brain waves pass through distinct stages that keep cycling between REM (Rapid-Eye Movement) and Non-REM sleep. This is referring to the sleep cycle, and this is how the sleep cycle works:

There are four stages of sleep: Stage 1, Stage 2, Stage 3, and REM. These stages do not always occur in order. In fact, they rarely occur in order.

The sleep cycle begins with three Non-REM phases that people experience before reaching REM sleep:

Stage 1 – TRANSITION
This stage between asleep and awake is almost always first. It may be just a minute or so long, but is usually less. It is just a transition from awake to Stage 2 where one spends about seventy-five percent of the night. Typically, a person will drift straight through Stage 1 for a minute or two, and be in Stage 2 for some time. One’s eyes are closed, but it’s easy to wake the person up.

Stage 2 – LIGHT SLEEP
In this stage one’s heart rate slows and one’s body temperature drops. The body is getting ready for deep sleep.

Stage 3 – DEEP SLEEP
This stage is tricky. Deep sleep is also called delta sleep. It is the restorative sleep for the body, when the brain secretes growth hormones, and when our breathing is most regulated. Children have a long period of delta sleep. As we age, the amount of delta sleep that we have decreases by a certain percent each year, so that by the time we reach ages 60 to 70 we have little to NO delta sleep. Men begin to bypass the delta sleep stage sooner than women. It is likely that in an adult population, researchers will not see delta when studying a normal night of sleep. There will be a night here and there when an adult will have an instance of some delta activity, but it is not a stage that they go through on a nightly basis.

It is harder to rouse one during this stage, and if someone wakes one up, one would feel disoriented for a few minutes. During the deep stages of Non-REM sleep, the body repairs and re-grows tissues, builds bone and muscle, and strengthens the immune system.

The Sleep Cycle now moves into deep REM sleep:
Usually, REM sleep happens approximately 90 minutes after one falls asleep. The first period of REM typically lasts 10 minutes. Each of the later REM stages gets longer, and the final one may last up to an hour. One’s heart rate and breathing quicken. One tends to have dreams during REM sleep. The cycle then begins all over again. The last REM cycle is the longest and most restorative and awakening during this cycle can leave one feeling disoriented.