A LINE ON LIFE

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A Lifetime of Sleep *

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If you have lived long enough, you may have noticed changes in your sleeping pattern. These changes may provoke some anxiety, but changes in sleep patterns are typical throughout anyone's life span. What are the typical patterns at various ages?

Infancy

If you have ever hoped to "*sleep like a baby*," you may be in for a surprise. Are you asking to sleep an average of 16 hours a day like the typical newborn? (Healthy babies may sleep as little as 11 to as much as 21 hours per day.) Or is it that you want the typical newborn habit of waking up every 2-3 hours around the clock? Infants generally start to sleep through the night in the first 3-6 months. By 6 months, more than half of their sleep occurs at night. Newborns typically have 6-8 sleep periods.

These periods alternate between regular sleep and the beginnings of adult **REM sleep**. In case you don't know, REM stands for rapid eye movement that occurs when an adult is dreaming. This type of sleep is also called **paradoxical sleep**, because even though the brain activity resembles the waking state, the person is incapable of large muscle movement. (You do not "*toss and turn*" while you are dreaming. Large muscle activity occurs *between* dream cycles.) Cycles of REM sleep occur almost hourly for about 50-80% of the newborn's total sleep cycle. Over the first 6 months, REM sleep drops to about 30% of sleep time, and the cycles become more consistent.

Childhood

The average amount of sleep continues to decline. Preschoolers tend to sleep through the night with one daytime nap. Between the ages of 6-16, sleep drops from 11 to 8 hours. By the age of 5, REM sleep only accounts for a little over 2 hours. **Stage 4 sleep** – the deepest level of sleep – is at its highest proportion in early childhood, with 100 minutes or more seen in the average two-year-old.

Adolescence

Teenagers are less likely to wake up spontaneously in the morning and are apt to sleep later and take afternoon naps. There may be more than one reason for this. First, during **puberty** – the second-fastest growth period next to the first few years of life – so much energy is used in growing that more sleep is required. Also, adolescence is one of the most physically active periods for most people, leading to a greater need for rest. (It is hard to believe these reasons, when a teenager – who is almost impossible to wake for school – bounds out of bed early for pleasurable activities on the weekend.)

Young Adulthood

Most is known about the sleep habits of 18-22 year-old college students, the group that provides the largest pool of research volunteers. On average, they take 5-15 minutes to fall asleep, awaken only once every other night, and stay awake for less than 5 minutes.

No sex differences are evident. Both sexes average 7-8 hours of sleep a night, with the normal range of between 6-10 hours. However, individuals show great variability from night to night. Although they go to bed at varying times, they tend to have more regular times for awakening.

Young adults spend about 25% of the night in REM sleep. The first REM period – about 10 minutes – is the shortest, with later periods getting progressively longer – up to one hour in length. Almost all stage 4 sleep occurs in the first 4 hours after falling asleep.

Later Adulthood

At age 25-30, the amount of stage 4 sleep drops greatly. By 35, it accounts for less than 30 minutes per night. By age 50, some people have none of this very deep sleep. Sleep patterns undergo major changes between early adulthood and middle age.

People over 60 often become "night prowlers" in the home, because they wake up more often, have more trouble falling asleep again, sleep more lightly, and have fewer periods of deep (stage 4) sleep.

Women's sleep patterns do not change as dramatically as those of men. In general, women's patterns of sleep tend to be like the sleep patterns of men ten years younger.

When you read this information, it is important to realize two things.

1. Most of the times and percentages quoted are averages.

2. Normal, healthy people can vary from these averages.

For example, some people are "*short sleepers*" averaging less than 6 hours a night. At the other end of the normal range, other may be "*long sleepers*" who usually sleep more than 9 hours a night.

If you are among the many retirees in Arizona, you may recognize the changes that have been described. If you are younger, these lifetime changes in sleep will be easier to accept without undue concern, because you can see them as part of a normal pattern.

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* Adapted from Papalia and Olds' *Psychology*, McGraw-Hill, 1988, pages 125-130.