**Sleep and Dreams**

**Biological Rhythms**

**Our age-old biological rhythms affect our daily functioning and especially our sleep and dreams. Our internal “biological clocks” regulate four cycles—annual cycles, twenty-eight day cycles, twenty-four hour cycles, and ninety-minute cycles.**

**The Rhythm of Sleep**

**Our daily schedule of waking and sleeping is timed by a body clock known as circadian rhythm. Each night’s sleep also has a rhythm of its own, running from transitional Stage 1 sleep to deep Stage 4 sleep and back up to the more internally active REM sleep stage. This cycle repeats several times during a normal night’s sleep, with periods of Stage 4 sleep progressively shortening and of dream-laden REM sleep lengthening.**

**Why Do We Sleep?**

**Each individual’s sleep needs are established based on their age, genetic makeup, and culture. Therefore, the eight-hour sleep rule does not apply to everyone. Those who do not get their necessary sleep are said to be sleep deprived and suffer many symptoms including slowed reaction time, irritability, and a suppressed immune system. The theories of why we sleep state that it is protective, recuperative, restorative for our memories, and helps us grow.**

**Sleep Disorders**

**The disorders of sleep include insomnia (difficulty falling and/or staying asleep), narcolepsy (sudden uncontrollable sleepiness or lapsing into REM sleep), and sleep apnea (the stopping of breathing while asleep). Children are more prone to night terrors and sleepwalking because they experience the deepest Stage 4 sleep.**

**Dreams**

**Although conscious thoughts can occur during any sleep stage, awakening people during REM sleep yields predictable "dreamlike" reports; awakening during other sleep stages yields only an occasional fleeting image. Our dreams are mostly of ordinary events and everyday experiences; they tend to involve some anxiety or misfortune more than an achievement.**

**Freud believed that a dream’s manifest content, or story line, is a censored version of its latent content, some underlying meaning that gratifies our unconscious wishes. More recent explanations of why we dream suggest that dreams (1) help process information from the day and fix it in memory, (2) serve a physiological function, and/or (3) are the brain’s efforts to synthesize periodic hallucinations (from activity bursts in the visual cortex) into a story line. Some researchers dispute both the Freudian and activation-synthesis theories and feel that dreams help the brain mature and contribute to cognitive development. Despite their differences, most theorists agree that REM sleep and its associated dreams serve an important function, as shown by the REM rebound that occurs following REM deprivation.**