

1 QUESTION

WHY DO WE SLEEP AND WHAT IS HAPPENING WHEN CHILDREN SLEEP?

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The precise purpose of sleep remains unclear, but it is certainly a necessity. If one stays awake too long, the intrinsic drive to sleep will overcome any conscious desire for wakefulness. If experimental animals are deprived of sleep long enough, death ensues. Sleep is also clearly a requirement for the optimal physical, emotional, social, and cognitive functioning of a child. Indeed, learning and behavior are impacted by sleep deprivation or sleep fragmentation. A child's sleep pattern is also critical to the optimal functioning of a family and it is a source of great stress and distress when a child's sleep difficulties impact the rhythms of family life. Unfortunately, the sleep-wake cycle of a child and his or her family is often very out of balance before a practitioner becomes aware of any concern and, much to the dismay of both the parent and the practitioner, a rapid solution is often out of the question by this time.

During infancy, eye closure is the most reliable sign of sleep, and wakeful behaviors such as suckling, whimpering, or even crying may persist in the initial moments of normal infant sleep. However, with age and central nervous system development, the more familiar mature patterns of sleep become apparent. The body is still and peaceful and, indeed, frequent or unusual movements during sleep may be the sign of an underlying sleep disorder. Similarly, breathing during sleep should also be quiet and peaceful. Snoring, gasping, or irregular breathing may also be a sign of underlying sleep disorder. Breathing during sleep in a healthy child should be a subtle finding. Sleep is often further described as a state of reversible disengagement from the environment associated with relaxed posture and muscle tone and reduced, but not absent, responsiveness to environmental input and stimuli. While most often appearing quiescent externally, sleep is a time of intense neural activity as the brain cycles through the stages of rapid eye movement (REM) and NREM sleep. Other bodily systems and functions undergo important transitions during sleep as well, as will be briefly outlined next.

Over the years, many theories about the purpose of sleep have been proposed. These include a central role for sleep in energy conservation, self preservation and species adaptation, physical restoration, developmental facilitation, and learning and memory processing. Each of these theories has its own basis in physiological or anthropological evidence, but none has been proved with