

## **What Good is Sleep?**

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Recently we described the sleep patterns of dogs and cats. Both species seem to sleep more than people, many of whom seem to be in a constant state of sleep deprivation. Comparative studies have shown distinctive patterns of activity and sleep in different vertebrate species. Horses for example, sleep only about 3-4 hours a day while a species of pocket mouse sleeps over 20 hours a day. Why are there such differences in the amount of sleep different species need?

Remember that like other behaviors, sleep is a behavior with a purpose. It's not just something that happens when the animal has nothing else to do. Sleep has specific functions that are valuable to the animal. One general function of sleep may be to restore things that are lost or temporarily used up during awake periods. Differences in sleep patterns may occur because sleep probably serves other, different functions for different animals

Animal behaviorists have long debated the functions of sleep with no clear answers. One theory is that small animals, such as mice, sleep more than large animals such as elephants, because smaller animals have more of a need to conserve energy. Another idea is that animals that are preyed upon like deer or bison, will sleep less than animals that are predators such as wolves and mountain lions. Prey animals need to keep alert to avoid being killed.

A third theory is that species that need to spend more time gathering food like grazing animals such as cattle and horses will sleep less than those that can obtain food more quickly such as fruit eating monkeys.

Sleeping is also a conflict behavior that can occur in stressful situations. Sleep may also be a way animals cope with stress. By falling asleep, animals can avoid stressful events. Most likely sleep has evolved for several different reasons.