

## News & Comments A Study Finds Dogs Get Less Rem Sleep than Wolves

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A study on canine sleep sheds light on sleep patterns of domesticated species that have adapted to human environments.

In this one-of-a-kind <u>study</u>, scientists for the very first time measured the wolf's (dog's wild counterpart) sleep using fully non-invasive EEG measurements, similar to human sleep EEG. The evolutionary study of wolves and dogs explains a better understanding of the effects of domestication and cohabitation with humans on sleep. Human sleep may have evolved in response to environmental conditions such as sleeping in a protected environment.

Other species' sleep may also undergo similar changes as they adapt to human environments. For instance, dogs, in an unfamiliar environment, dogs, like humans, sleep more superficially. Comparing dogs to their wild counterparts, the wolves provide a unique opportunity to gain a better understanding of how domestication and cohabitation with humans affect sleep phenotypes and physiology. Researchers were able to measure all sleep stages previously observed in dogs - drowsiness, deep sleep, and REM sleep. A comparison was made between data obtained from the wolves and data recorded from family dogs previously.

Researchers found many similarities between dogs and wolves: both spend a similar amount of time in different sleep stages, and older animals log less deep sleep, or slow wave brain activity than younger ones. There were some differences noted, such as wolves sleeping more REM sleep, which is associated with dreaming in humans. This difference is greater in older animals.

We may also be able to learn something about human sleep by studying how dogs have evolved their sleep patterns over time as a result of domestication. Due to advances like electricity and the lightbulb, our species has also gone from living wilder, outdoor lives to days that are more controlled and less reliant on natural rhythms.

## **KEYWORDS**

Animal physiology, Cognitive neuroscience, Neuroscience, Zoology, sleep study, wolves, dogs, REM, Deep sleep, EEG, Animal's sleep, human environment

