

Why do we need sleep?

If you're lucky, you'll spend a third of your life asleep. "That's pretty incredible if you think about it, because when we're asleep we're not doing things that are important for our survival or reproductive success," says [Charles Nunn](#), a professor of evolutionary anthropology at Duke University.

But nearly all animals show some signs of sleep. The birds do it, the bees do it, jellyfish, and fruit flies all sleep too. We know there are complex neurophysiological mechanisms going on during sleep. And we know that if we don't get enough, our mental and physical health suffers, as is most clearly exemplified by the more than 70 million Americans who suffer from a sleep disorders.

But why has sleep evolved? More importantly, what is the evolutionary context of which human sleep has evolved? By researching these questions, Nunn says, it might just help us to better understand sleep disorders such as insomnia, narcolepsy, seasonal affective disorder, and circadian rhythm disorders.

Nunn's lab decided to create a database called "phylogeny of sleep," for which they obtained data from 127 mammalian species, an average of nine individuals per species. They looked at total sleep duration, non-REM duration, REM duration, cycle length, and also whether or not sleep happened in one phase (mono-phasic) or if it was segmented (poly-phasic).

"What we find is incredible variation across mammals," Nunn said. Among the expert sleepers included bats, while giraffes that spend very little time asleep (neck comfort might be an issue [here](#)).

The variation is explained by two categories of hypotheses: *ecological*, related to factors such as predation risk, and *functional*, related to brain size and function.

Read full, original article: [Why we sleep the way we do](#)