# How Drunk Are You Without Sleep?

Studies have been conducted, and replicated, to determine how long a person needs to be awake before impairment is measurable, how the impairment progresses, and how long it takes to recover. Impairment is measured by counting lapses in attention. Comparisons are made between fully-rested subjects, sleep-deprived subjects, and legally drunk subjects. Here are some meaningful results:

- Relative to a fully-rested person, a person who has been awake for 16 hours has measurable impairment.
- A person who has been awake for 19 hours is as cognitively impaired as a person who is legally drunk.
- Being awake for 24 hours produces more than 4 times as many missed responses in reaction time tests. (Yep, we mean that the reaction time was not measured because the subject never responded to the stimuli. It was almost as if they were asleep for a second or two...) This level of impairment is worse than that measured for a person that has been awake for 19 hours or is legally drunk.
- Sleeping 6 hours a night for 10 days leads to impairment equivalent to a person who has been awake for 24 hours. (Worse than being drunk...)
- Sleeping 4 hours a night for 6 days leads to impairment equivalent to a person who has been awake for 24 hours. (Still worse than being drunk...)
- Sleep-deprivation leads to a steady increase in impairment. That is, the test performance of subjects gets worse and there is no evidence to support a maximal impairment level.
- Chronic sleep restriction (routinely getting less than 7 hours of sleep a night) for a week requires more than 3 nights of recovery sleep to return to fully-rested levels of test performance. (You cannot make up for it on the weekends...)
- Sleep deprived individuals do not accurately self-assess how sleep deprived they are. (You may think you are alert enough to drive, but are not.)

The message is simple: to be at your best cognitively, sleep 7 to 9 hours a night (with a consistent rise-time and bedtime) each and every day.

Walker, M. (2017). *Why We Sleep.* New York, NY: Simon and Schuster. p. 134-140.