

CAFFEINE AND SLEEP

Many students use caffeine to feel more awake after not getting sufficient sleep. Although caffeine does mask the feeling of sleepiness, it is actually one of the factors that disrupts our sleep.

HOW DOES SLEEP WORK?

- Sleep pressure (the need to sleep) builds up during the day as adenosine binds to receptors in our brain. When we sleep, adenosine levels decrease and sleep pressure is released.¹
- Our circadian clock (internal clock) determines when our bodies naturally want to wake up and go to bed. Our body naturally produces melatonin before our circadian "bedtime", sending us a signal that it's time to sleep.²

WHAT DOES CAFFEINE DO?

- Caffeine blocks the adenosine receptors in our brain so we don't feel the sensation of sleep pressure.
- Drinking 200mg of caffeine 3 hours before our circadian bedtime delays the release of melatonin, a chemical that causes sleep. This pushes back your sleep time by about 40 minutes.³

TAKEAWAYS

- Stop drinking caffeine at least 6 hours before you plan to sleep
- Identify barriers to getting adequate sleep
- Set sleep goals and use campus resources to support your goals

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1. Clark, I., & Landolt, H. (2017). Coffee, caffeine, and sleep: A systematic review of epidemiological studies and randomized controlled trials. *Sleep Medicine Reviews*, 31, 70-78.

2. Landolt, H. (2015). Caffeine, the circadian clock, and sleep. *Science*, 349(6254), 1289.

3. Sainani, Kristin. (2014). Caffeine And Sleep. *Allure*, 24(5), 134.