



## Caffeine Intake Effecting Sleep Habits and Quality of Sleep

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### Introduction

Consumption of Caffeine in the form of coffee most widely consumed stimulants in the world, with 90% of adults consuming caffeine-infused beverages almost regularly, Caffeine is a natural psychoactive substance majorly used in foods and beverages across the world, found in many plants like coffee beans, tea leaves, cacao pods, and kola nuts. It can be synthetically produced and used in medications and energy drinks for its alertness- promoting effects. It is most potent, single eight-ounce cup of coffee contains between 95-200mg of caffeine. For comparison, a 12-ounce soda contains 35-45mg, about half the amount of a weaker cup of coffee. It is a type of drug promotes alertness. These drugs are called stimulants. Caffeine acts as an adenosine receptor antagonist. Adenosine is a substance present in body which promotes sleepiness. By blocking the adenosine receptor helping our body for feeling sleepy and alerting the brain. It reaches peak level in blood within 30 to 60 minutes. It has a half-life is 3 to 5 hours. The resultant remaining caffeine can stay in your body for a long time.

### Description

Amount of caffeine ranging from 200-400 mg are effective often utilized in sustain performance of sleep deprivation, sedation, and sleep restriction. [1] Up to 500 mg of caffeine can be found in brewed coffee [2]. The use of similarly high doses of caffeine-containing beverages, including energy drinks have doubling of caffeine. Sleep disruptive effects of caffeine administration at bedtime are more [3]. Caffeine administration majorly used as a model of insomnia [4], increasing doses of caffeine near bedtime are known to cause sleep disturbance. Both positive and negative effects are present intake of caffeine and when you consume it

### Positive Effects

Caffeine is moderately effective alerting agent. With positive effect on reaction times, mood and mental performance. Dose of caffeine taken normally is about 50 mg to 200 mg.

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### Negative Effects

Caffeine has a disruptive effect on sleep. Most obvious effect of the stimulant is to fall asleep. By delay the timing of your body clock and reducing your total sleep time. It is found that consuming caffeine 6 hours before bedtime reduced total sleep time by 1 hour. bodies taking a longer time to process caffeine. Regular consuming high doses of caffeine can cause complications during pregnancy. Intake of higher dose causes Diarrhea, Sweating, Nausea, Increased heart rate, Increased breathing rate, Muscle tremors [5]

Withdrawal symptoms like

- Headaches
- Sleepiness
- Low energy levels
- Bad moods

### Conclusion

Effects of sleep wake schedules while incorporating adenosine-receptor antagonists like caffeine have major effects on sleep deprivation. caffeine which is consumed at least 14 h prior to sleep, meaning the accuracy in response when caffeine is taken immediately prior to bedtime can be prevented and major negative effect can be prevented.

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