

Effect of Caffeinated Drinks, Alcohol, and Smoking on Sleep



The Great Sleep Disrupters

Caffeine. The most commonly used addictive substance in our daily life is caffeine. It is found naturally in over 60 plants, including familiar names such as coffee beans, tea leaves, including some green tea leaves, chocolate, and cocoa. Caffeine is a common additive in many soft drinks and energy drinks, some of which may carry a harmful amount of caffeine. As more of the population become sleep-deprived, the use of caffeinated beverages keeps growing. Caffeine sets up a vicious cycle of increased consumption. The more sleep-deprived an individual gets, the more he/she relies on caffeine to stay awake; and the more caffeine he/she consumes, the more sleep-deprived he/she becomes.

Caffeine is a stimulant that blocks the sleep chemical adenosine, considered the driver in chief of starting the sleeping engine in the brain. Caffeine also interferes with the body's timekeeping capability. It is good at eliminating the desire for sleep, convincing the brain that it is not as late even when it is late enough to sleep. It takes the body about 6 hours to eliminate half of the caffeine consumed. So any caffeine consumed in the late afternoon is going to affect the natural sleep drive.

Alcohol. Drinking at night before bedtime may make an individual sleep faster, but not longer. Alcohol increases adenosine production; however, that subsides quickly, keeping the drinker awake. Alcohol changes the sleep cycle, bypassing the stages of deep sleep getting into REM dream sleep. The alcoholics, therefore, spend more time in the dream state. The morning hangover after drinking alcohol is because of this phenomenon. The diuretic effect of alcohol also disrupts sleep for bathroom trips. Additionally, alcohol relaxes muscles of the throat and collapses the breathing passage, causing heavy snoring and obstruction of free movement of air to and from the lungs.

Smoking. Nicotine is the active chemical in cigarettes and other smoking devices. Nicotine is a stimulant. It increases the heart rate and creates a state of alertness; both make it difficult to fall asleep.