

Studies insomnia,
and tiredness.
avoiding the downfall
of



Studies convey that 90 percent of high school students have sleeping issues as the result of the ingestion of caffeine.

The compound is found in many beverages. Consuming caffeine on a daily basis can impact the consumers' abiding health. The sweeping side effects of caffeine come with insomnia, nervousness, nausea, and migraines. The only way to cease the side effects is to stop consuming it. Although, about 90 percent of Americans ingest caffeine in some form every single day ("About Caffeine"). The dynamic results concerning caffeine can overall impact the future and current generations due to the deep-rooted effects of the compound.

Indulging of up to four cups of coffee or tea a day can promote crippling osteoporosis, ulcers, and heart disease. Even though caffeine has a transient enhancing impact, consumers should regulate the amount of intake. If they do not, the long terms outcomes of caffeine can have a negative imprint on the consumers' life. Caffeine is found in prevailing drinks that are within an arm's reach, making it effortless to consume more caffeine than intended. In America, nearly 80 percent of adults consume caffeine, while 90 percent of the world's population uses caffeine to enhance mental alertness (FDA).

If a person instantaneously lowers their intake of caffeine, there will be an aftermath of headaches, insomnia, and tiredness. Avoiding the downfall of decreasing intake can advance to an dependence on caffeine. Caffeine amplifies dopamine's ability to send signals within the brain. Dopamine is a chemical that is released by the nerve cells in the brain, it sends signals to other nerve cells as a form of communion (Merriam Webster). If dopamine's

abilities are amplified, the interaction between the cells is increased, making the consumer feel more alert. This alert feeling could be the cause of the dependence on caffeine. Dependency is the reliance one builds for something, and when they suddenly stops or decrease their intake, their body will go through a period of withdrawal that comes with physical and mental symptoms (NIDA). While an addiction is a disease that results from taking substances regularly becoming enjoyable but will soon grow into an uncontrollable problem that hampers with the daily life (“Addiction”).

A caffeine obsession is more of a dependency than an addiction, where the consumer would go through a period of withdrawal. Eventually, there will be modifications if the consumer changes their caffeine intake. The American Journal of Clinical Nutrition conducted a study with 18, 417 men and 39, 740 women from 1986 to 1998. The patient’s caffeine intake was constantly changed within those two years. Researchers found, if the amount of caffeine was increased, it leads to a small decrease in long-term weight gain. The patients who drank coffee and tea would gain less weight, the results were more dominant in younger participants that had a lower body mass index (Garcia). Quentin R.

Regestein researched the effects of caffeine and how it interferes with sleep patterns. He studied on six patients and figured out that when a patient stops their intake of caffeine, their condition of sleepiness disappeared. And when the amount of caffeine is increased, they had a surplus amount of daytime sleepiness (Regestein). Therefore, when there is a large amount of caffeine in the morning, it results in the long-term increase of caffeine intake and producing a cycle of dependency. When caffeine is absorbed through the <https://assignbuster.com/studies-insomnia-and-tiredness-avoiding-the-downfall-of/>

stomach and into the bloodstream, the caffeine starts to peak within fifteen to forty-five minutes.

Two hundred milligrams of coffee takes thirty-nine to forty minutes to be fully saturated in the bloodstream and has a bioavailability of ninety-nine percent ("Caffeine Absorption"). It's dispersed throughout the body from the brain to the lungs, brain, and even breast milk because of its solubility in fat and water. The levels of caffeine determine the density of the side effects.

Then, the liver metabolizes the caffeine and is discharged through urine, which will increase urination. However, the remaining caffeine in the bloodstream will continue to have an effect on the body. The total time it takes a human body to terminate half of the amount of caffeine intake takes a few hours to days. For a normal adult who does not smoke it typically takes about three to four hours to eliminate half of the consumed caffeine.

Factors that can mess up the duration of the effects are smoking, medications, pregnancy, and liver diseases (Erowid). The levels of enzymes in the liver can affect the span of caffeine because it determines the performance of metabolizing the caffeine. The average amount of caffeine intake is about 300 mg per day for one person (Whiteman). While a 16 oz Starbucks brewed coffee has a staggering 330 mg of caffeine, which is over the recommended amount. Three cups a day is the average amount of coffee a person drinks per day.

It is equivalent to about one and a half cups of a 16 oz Starbucks brewed coffee, containing 495 mg of caffeine (Fernau). The outcome of consuming <https://assignbuster.com/studies-insomnia-and-tiredness-avoiding-the-downfall-of/>

caffeine can result in leading side effects, an increase in blood pressure, a rise in alertness that can lead to confusion due to the overstimulation in the brain, headaches, heartburn, muscle aches, and insomnia (Pietrangelo). Caffeine is classified as an alkaloid, “ an organic compound of plant origin that have pronounced physiological actions on humans (English Oxford Living Dictionaries).” Popular drugs like morphine and nicotine are alkaloids can be either used for medical purposes or found in items such as cigarettes. Caffeine is a xanthine, which has a structure like two of the letters in DNA. Thus, when the liver metabolizes caffeine, it will take one of the carbon atoms around the hydrogens and create new stimulants, theophylline, theobromine, and paraxanthine (Turan).

High doses of caffeine will raise the blood level of epinephrine. Epinephrine then increases the blood pressure (Bunch), it is also known as adenosine when the brain creates adenosine to bind the receptors, it creates drowsiness and slows the nerve cells activity. To the nerve cells, caffeine looks like the adenosine, so it will use it to bind the receptors and cause the consumer to feel more alert. High doses of caffeine also cause insomnia, Consuming caffeine six hours before bedtime resulted in a decrease in sleep time by one hour (Drake).

Heartburn is when the sphincter muscles relax and allow the stomach matter to come up into the esophagus causing an acid reflux it is usually felt around the chest or throat but never the heart, even though it is called heartburn (Jean). Caffeinated substances such as coffee can cause heartburn, giving the consumer pain throughout the chest, neck, throat, and jaw. Caffeine can be used as a painkiller, but can also cause headaches due to the effect it has <https://assignbuster.com/studies-insomnia-and-tiredness-avoiding-the-downfall-of/>

on the blood vessels surrounding the brain. Caffeine constricts the blood vessels surrounding the brain when the caffeine is eliminated from the blood vessels, the blood vessels expand back to its normal size, causing a headache (“Caffeine and Headaches”). In 2013, Harvard’s School of Public Health found out that patients who drank two to three cups of coffee a day reduced their suicide risk by 45 percent, the caffeine’s stimulant helps boost the patient’s mood (Sagon). Having another sip of that Starbucks coffee can have more of an impact that is expected. Persistent intake of caffeine can raise the risks of osteoporosis, ulcers, heart disease, miscarriage and intrauterine growth retardation.

What happens when a patient takes high doses of caffeine? Excessive doses of caffeine can cause numerous side effects “related to abnormal stimulation of the central nervous system, decrease tonus of the lower esophageal sphincter (Lekarski).” Caffeine has constructed the demand for coffee due to its favorable effects. Coffee is the second most valuable commodity, coming after oil. Coffee is sold all around the world, it is a billion dollar industry alone, resulting in revenue from growing, packaging, and selling the coffee beans (“Coffee Industry Today”). The expanding industry of coffee can lead to the wave of millennials dealing with the effects of caffeine. According to Bloomberg, from 2008 to 2016 the daily intake of coffee intensified from thirty-four percent to forty-eight percent between the ages of eighteen to twenty-four in the United States (Perez).

In the city of Seattle, Washington has a density of two hundred and fifty-three coffee shops for every one hundred thousand resident. Seattle is the origin of the famous Starbucks, the largest coffee chain totaling in 27, 339
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stores worldwide as of 2017 (“ Number of Starbucks stores worldwide from 2003 to 2017”). As of 2011, Americans drinks up to 146 billion cups of coffee each year. The manifest of coffee drinkers in the U. S alone tells us that we have an obsession with caffeinated coffee.

Drinking coffee has become a daily routine, it is slowing becoming a part of America’s culture. Coffee shops popping up every block became the common grounds social meetings. When 90 percent of Americans consume caffeine in different types of form, it drives the domination of people facing the leading side effects of caffeine (“ About Caffeine”). This signals the start of a new habit for the future millennials to start consuming caffeine, it can risk the lives of many with the leading side effects. Teenagers and young adults are already starting to drink caffeinated products. In December 2012, “ teenagers and young adults consumed roughly one-third of caffeine as adults or about 100 mg per day, and ‘ energy drinks’ contributed only a small portion of caffeine consumed by teenagers (FDA).” As coffee becomes a daily routine of Americans, contemporary cafes opening every block, the dreadful effects of caffeine will affect the leading generations to come. Side effects like an increase in blood pressure, a rise in alertness that can lead to confusion attributable to the overstimulation in the brain, headaches, heartburn, muscle aches, and insomnia will come with the consequences of taking another sip of that nice warm cup of coffee.

When caffeine is introduced into the body, it enters the bloodstreams. Taking hours to days to metabolize by the liver and exit through the urine. While the average recommended amount of caffeine intake is 300 mg per day, the average amount of coffee a person drinks per day are equivalent to 495 mg
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of caffeine, which is over the recommended amount. Studies show that the aftermath of decreasing the intake of caffeine can lead to headaches, insomnia, and tiredness. And it can then form a dependency on caffeine on caffeine including a period of withdrawal. Coffee is the second most valuable commodity in the world, it's a billion-dollar industry alone.

Being a valuable commodity can have a huge impact on the future millennials, having it as a daily routine practice, such as visiting the coffee shop every day. Thus, it will create a wave of affected generations to the frightful short and long-term effects of caffeine.