

Caffeine

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Majority of households in the world take a cup of coffee in the morning. For many people, it has become a routine to take caffeinated kinds of soft drinks such as sodas which are energy boosting. Another large group takes drinks that contain caffeine in a bid to stay awake for longer hours. These caffeinated beverages are common everywhere in the world. It is estimated that 120, 000 tons of caffeine are consumed by the world population; this is in form of soft drinks, coffee and cola beverages. This is approximately one trillion cups per year, with it being part of daily life diet it has become odd for caffeine to be referred to as a drug (Klosterman, 2007). The table below outlines estimates of the number of caffeine use around some countries of the world. Table showing estimates of caffeine use from countries around the world. (In mg/ person/day).

Country	Field1	Field2	Field3
Brazil	26	1	4
Egypt	5	53	1
Finland	322	6	1
Germany	292	9	12
Saudi Arabia	14	13	2
United Kingdom	92	96	14

Source: extract from: Stephen et al, drug use and abuse, 2007 page 175. Caffeine can also be consumed in large amounts through a plant called guarana which in most cases is added to beverages, smoothies, energy bars, and other products in form of ' guarana extract.' Majority of consumers take the products not knowing that it contains a large quantity of caffeine. In other cases caffeine has been used in other products like beverages, vitamin water and citrus flavored sodas with consumers not knowing that the suggestive products do have the stimulant drug. Another source of caffeine is chocolate bars and drinks, majority of the younger population about 30% consume chocolates without the knowledge that it contains caffeine. Majority of the populations consume and abuse Caffeine orally this is indicated in table below. Caffeine

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can also be abused from medicinal drugs like aspirins, Cafe-got, Cope Midol and Anacin's which many individuals use as medication (Hopkins, 2011).

Table: showing caffeine concentration in beverages, energy drinks, foods, and medications. Table1 ID Field1 Field2 Source caffeine concentration (mg/o2 Total Caffeine (mg) Beverages: Coffee 13. 5 108 Tea 6 48 Energy drinks: Red bull 9. 6 80 Rock star 10 160 wired x50s 21 505 jolt coca 11. 9 280 foods: chocolates 6 6 medicines: Anacin 32 Cope Midol 32 Aspirin 32 Cafergot 100 Source: extract from: Stephen et al, drug use and abuse, 2007 page 172 Caffeine abuse can start in early childhood among toddlerhood in some families where children are provided with iced coffee beverages or sweetened soft drinks. Hundreds of studies have argued that when caffeine is used in moderate amounts, for example a cup a day, its effects are not serious. However, individuals who take large quantities of caffeine for long periods of time may be faced with serious health problems (Klosterman, 2007). Physiological effects of caffeine to human body Large quantities of caffeine intake may cause adenosine hypothesis which in most cases leads to behavioral sedations, reduction of oxygen delivery cells as well as dilation of cerebral and coronary blood vessels which ultimately results to asthma. Caffeine is rapidly absorbed into body water fluids from the gastrointestinal tracts and reaches the brain; this is because it can pass through blood brain barriers more easily using the body fluids. However, the half life of caffeine in the blood does vary among individuals but in most cases it ranges from about 21% to 71% hours. The source of caffeine in some cases influence the peak levels of caffeine, for example for tea and coffee it is about 30 minutes of ingestion, while for other soft drinks like coca cola it can take more than one hour to be ingested (Stephen & Connors, 2007). The distribution of <https://assignbuster.com/caffeine/>

caffeine occurs in the entire body equally; as a result it passes through the placenta with less difficulty, which means that the concentration of caffeine is same throughout the body parts. A number of health practitioners have stated that nearly all ingested caffeine is metabolized through the liver. Drugs and cigarettes interact with caffeine and can influence the metabolism mechanism positively or negatively. Persons who are addicted to caffeine feel grumpy and irritable before a cup of caffeine. A study that was done by pediatrics stated that when individuals are addicted to caffeine they start losing focus and alertness in majority of activities. Experiments further show that physical dependence can develop to exposure of 300 milligrams of caffeine, while withdrawal symptoms can range from mild to severe and can begin within 12-24 hours of cessation of caffeine use. The withdrawal symptoms of caffeine use include headache, fatigue, depression, decreased alertness and increased drowsiness (Wickman, 2008). One acute effect of caffeine is stimulation of the Central Nervous System activity in the body after consumption of caffeine has reached its half life. This result to behavioral and physiological effects such as elevated moods, individuals feel energized and in some of the cases they become confident and alert. Among individuals who consume caffeine moderately, about 200mg each day, they are faced with cases of anxiety and in other cases they can get panicky. Health practitioners have estimated that consuming 600mg of caffeine per day does increase caffeinism which increases the cases of toxic symptoms involving muscle twitching, psychomotor agitations and cardiac arrhythmia (Stephen & Connors, 2007). In conclusion, even though caffeine has some desired effects, such as increased alertness and confidence, it has some detrimental effects. Continual use of caffeine in large amounts can result to

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diseases of the liver or affect the central nervous system of an individual. Therefore, people should regulate the amounts of caffeine that they take and exercise caution in what they consume since in some cases caffeine intake occurs unknowingly. References Hopkins, J. (2011). Pediatrics: effects of caffeine and technology: Journal of America Health Associations. Vol. 16. No. 6. Klosterman, L. (2007). Drugs the facts about caffeine, White plain road, New York: Marshall Cavendish Corporation. Stephen, A. & Connors, G. (2007). Drugs use and abuse. New York: Mc Graw hill. Wickman, H. (2008) Drug and substance abuse: caffeine use. The Journal of Ability & society. Vol. 22. No. 4.