



Danger is Brewing in the Cup



It is a drug. It is the world's most popular stimulant. Children and adolescents gulp it down by cans full; adults and seniors drink it by cupfuls and pop it by bottlefuls.

The culprit is caffeine! Whether you get it in your coffee, tea, soda, eat it in your chocolate and cocoa, or swallow pills, caffeine is affecting your health in dozens of dangerous ways.

Many people cannot start their day without a cup of coffee. Others must have it at their 10:00 o'clock break. Children and adolescents get their caffeine from cokes and soft drinks. Office workers, construction workers, pilots, and school teachers use caffeinated beverages to buy a few more hours of alertness at the job.

With 70% of the world's coffee supply consumed in the U.S., the average American has 227 mg. of caffeine per day! Four out of five Americans are drinking coffee on any given day. About 20% of these use more than 350 mg. daily, this is sufficient to produce dependency. 2 Coffee and tea contribute the greatest amount of caffeine in our diet. The caffeine content of coffee and tea depends on the method of preparation and the strength of the brew. It can vary from 30-140 mg. /5 ozs. cup. See Table 2. Soft drinks are the third largest contributor of caffeine, containing 30-55 mg. per 12 ozs.

What's Brewing on the Caffeine Front?

Caffeine belongs to a family of chemicals called methylxanthines. This drug has adverse effects on our body which can be felt from head to toe. So, while coffee lovers are brewing their coffee, soda lovers guzzling their soda pops, and pill users are popping their pills, methylxanthines are brewing a whole host of health problems inside the body. See Table 1.

CENTRAL NERVOUS SYSTEM

Many people do not depend on a nutritious breakfast to give them "go power" but on coffee. It is common knowledge that caffeinated drinks affect the nervous system and provide temporary relief from fatigue and sluggishness. At first, caffeine produces a state of alertness and increased energy. When the drug effects wear off it causes irritability, nervousness, headaches, and depression. Yet, while it may speed up reaction time and improve automatic processing skills like doing arithmetic problems, it worsens performance of more complicated tasks. 3 "Caffeine also worsens fine motor coordination due to an increase in hand tremors." 4

FETUSES AND PREGNANT WOMEN

Within thirty minutes of consumption, caffeine reaches peak levels in the blood and saturates other body tissues at a level proportional to their water content. Unborn fetuses take in caffeine through the placenta, and breast-fed infants get it through human breast milk.

Caffeine does not get eliminated from the body right away. Depending on age, sex and hormone levels, medications, smoking status, and pregnancy, caffeine may stay around for days. Newborns, pregnant women, and those using birth control pills remove caffeine more slowly from their bodies. After three hours to four days only 50% (half-life) of the caffeine is removed from a newborn's body. This is due to the fact that infants do not have the enzymes to metabolize the drug. The half-life of caffeine in nonsmoking adults is 5-7 hours, in pregnant women 18-20 hours.⁵

Caffeine has a variety of physiological effects on the body. See [Table 1](#). Adults who drink 1-3 cups of coffee or have 1-4 sodas daily consume 75200 mg. of caffeine and will experience clear physiological effects.

PMS AND FIBROCYSTIC BREAST DISEASE

Women who drink 8-10 cups of coffee daily have a 7 times greater risk of having PMS symptoms than those who do not drink. A female physician with fibrocystic breast disease was consuming 1,300 mg. of methylxanthines per day. Then she stopped using coffee, tea, colas, and chocolate for a month, the lumps in her breasts diminished. After two months, her fibrocystic disease disappeared.⁶

OSTEOPOROSIS

Linda Massey, a bone researcher from Washington State University states that caffeine can have negative effects on our bones. According to Creighton University's Osteoporosis Research Unit, "The more regularly a woman drinks coffee, the more calcium is excreted in her urine. The loss adds to about 5 mg. of calcium for every six ounces of coffee or two cans of cola."⁷

BIRTH DEFECTS, MISCARRIAGES, AND INFERTILITY

Studies with laboratory animals reveal that mother rats that take large amounts of caffeine bear malformed babies. Three women who drank 8-25 cups of coffee per day reported birth defects in their children. ⁸ Since caffeine easily crosses the human placenta, the fetus is quite vulnerable to this drug, especially as infants metabolize it very slowly.

In one study 4,000 women who consumed 150-300 mg. of caffeine per day during their pregnancy had more than twice the risk of delivering underweight babies (less than 5.5 lbs.) than those who consumed less caffeine. The risk of delivering a low birth weight baby is almost five times greater for women who consume more than 300 mg. of caffeine per day. Infants born with low birth weight have an increased risk of dying in early infancy. Due to these adverse effects of caffeine on the fetus, the FDA advises pregnant women to "avoid caffeine containing foods and drugs, if possible, or consume them sparingly."⁹

Danger in the Cup

Ever tried getting pregnant while consuming caffeine-containing drinks? A 1996 study showed that women who were consuming more than 300 mg. of caffeine had double the risk of miscarriage.¹⁰ Allen Wilcox of the National Institute of Environmental Health Sciences in Research Triangle, North Carolina, showed that women who drank just one cup of regular coffee a day were half as likely to become pregnant during any given menstrual cycle as those who drank less. ¹¹ Since then ten more studies have been conducted, and they have found that three or more cups of regular coffee/day impairs fertility.

CANCER

Caffeine does not appear to cause cancer directly but increases the growth of tumors which are caused by other carcinogens. Heavy coffee drinking doubles the risk of bladder cancer, while tea drinking increases rectal cancer. ¹²

ULCERS

Caffeine causes increased gastric acid secretion which in turn aggravates peptic ulcers. Even decaffeinated coffee has been shown to stimulate stomach acid through the irritating effect of caffeine which contributes to taste and aroma in coffee. ¹³

SLEEP

While caffeine can delay the onset of sleep, it also interferes with rapid eye movement (REM) sleep, the stage when dreams occur. In a recent study, women who routinely took caffeine-containing medications had more trouble falling asleep at night than those who had no caffeinated medications. ¹⁴

HEART DISEASE

Caffeine affects the heart and blood vessels by elevating cholesterol and triglyceride levels. At Stanford University, researchers report that middle-aged men who drink three or more cups of coffee per day had elevated blood levels of LDL cholesterol (bad cholesterol) .¹⁵

A recent Norwegian study of 7,589 men and 8,585 women found that the more coffee they consumed, the higher was their homocysteine level. Those with elevated homocysteine levels have a greater risk of coronary artery disease. ¹⁶

What about decaffeinated coffee? Two studies have shown that LDL cholesterol increases when coffee drinkers switched to decaffeinated coffee. Besides elevating blood fats, coffee can cause heart palpitations and increase the rate of irregular heartbeat. Mild hypertensives should also restrict their caffeine intake.

Caffeine Addiction

Among the most detrimental effects of caffeine on the body is drug dependency. The addiction to caffeine has given rise to a new disease called 5 caffeineism. Increased blood levels of caffeine may cause a craving for nicotine; so anyone wishing to quit smoking must stop drinking caffeinated beverages.

Danger in the Cup

How can you know if you are addicted to caffeine? Individuals who drink 5-6 cups of coffee or caffeinated beverages have shown behavioral and psycho-physiological symptoms to caffeine. The symptoms of caffeinism are: restlessness, anxiety, irritability, muscle tremors, agitation, jitters, insomnia, lightheadedness, heart palpitations, diarrhea, increased urination, and headaches.

Children and Adolescents

According to pediatricians, children and adolescents are some of the most targeted groups for caffeine addiction. On a body-weight basis, 1-5 year-olds are the highest consumers of caffeine. A child who drinks one can of soda per day is getting the equivalent of four cups of coffee for an adult. One third of all the children who drink high levels of caffeinated beverages show hyperactive behavior which is typical of caffeinism. No wonder pediatricians are concerned about the growing number of soda-guzzling youngsters and adolescents who come in with irritability, headache, and nervousness.

10 Ways to Overcome the Caffeine Habit 17

Caffeine is a health and spiritual hazard that may cost you your eternal life. One study showed that increasing consumption of caffeine causes a corresponding decrease in religious involvement as measured by church attendance. ¹⁸ For the optimal functioning of the brain, heart, and body, as well as for the abundant health of your family, complete abstinence from caffeine-loaded beverages is the prudent choice. So, give caffeine a "quitting notice!" The methods below will help you to quit for good.

1. Have a dry brush massage

When you feel drowsy, have a dry brush massage before you shower. Brush the skin with short or long, low strokes toward the heart. Skin brushing acts as a natural stimulant.

2. Take a hot/cold shower

When you feel sluggish and need a mental pickup, take a hot shower for a minute and follow it by a cold shower. Repeat this up to seven times each. This wet exercise will stimulate your circulation and energize your mental attitude.

3. Get outdoor exercise

If you are unable to take a shower, take a brisk 15-minute walk, jog, or bike ride, and you will have the same beneficial stimulus to brain, blood, and muscles.

4. Watch your diet

Stay away from sugar and other concentrated sweets. Avoid overeating.

5. Have water or herbal tea on hand

Keep a glass of cool water, catnip, or other herbal tea on hand to replace the habit of sipping down caffeinated beverages.

6. Take a hot foot bath

Danger in the Cup

Headache is a serious withdrawal symptom, which can be alleviated by a simple 20-45-minute hot foot bath. Finish the hot foot bath by throwing a bucket with ice and water over your feet.

7. Take a little sip

When symptoms [headache, dizziness, and backache] begin to appear, take a tablespoon of caffeine beverage and then wait 30 minutes. If symptoms are still there, take another tablespoon. These symptoms will disappear in a few days, and you need to stop the sips of caffeine.

8. Lubricate your body

Drink 8-10 cups of water daily and eat lots of raw fruits and vegetables.

9. Drink the Water of Life

Take a daily drink of the water of life, which your Maker offers, and you will never thirst for the artificial drinks like coffee, tea, or soda. "But whosoever drinketh of the water that I shall give him shall never thirst; but the water that I shall give him shall be in him a well of water springing up into everlasting life."-John 4:14.

10. Keep yourself busy

Do not allow leisure time to accumulate as idleness produces self-indulgence.

An Alternative Stimulant

We live in a "click-of-the-button" society. People want instant answers to their physical, emotional, and social problems. If they are tired, they want some magical concoctions to pep them up; if they are emotionally down, they want something to instantly lift their spirits. So, thousands turn to caffeine, alcohol, or illegal drugs to get an instant "high." We must understand, however, that for every mountain peak there is a corresponding valley. The more frequently we depend on artificial stimulants, the grater will be the immediate "high," but the deeper and more drastic the "low." The lows create an appetite for bigger and "better" highs which never get satisfied and so addiction develops. 2

Our Creator knew that as frail mortals we would have our low and high days. This is why He says, "Comfort ye, comfort ye My people, . . . Every valley shall be exalted, and every mountain and hill shall be made low: and the crooked shall be made straight, and the rough places plain. For the mouth of the Lord hath spoken it."-Isaiah 40:1-5. God sent His Son to lift us out of the valleys and straighten the rough places of our experience. Instead of leaning on caffeine-loaded beverages to pep your spirits up, lift you out of depression, or energize your mind, ask Him to be your Stimulator of positive thoughts and energized living. A friendship with Jesus Christ will give you thousands of positive mental, physical, and spiritual benefits. What's best, there are no side effects when you get "stimulated" by the Creator of the Universe. by Liliane Balbach, M.S., RD.

References

1. Nieman, Dc., D E. Butterworth, and C. N. Nieman, Nlllrition, Wm. C. Brown Publishers, Dubuque. 10, 1992.

Danger in the Cup

2. Cralg, W.J. 'Caffeine, it Can Cause Real Havoc.' J. Hlth. Healmg, 19:3, 1996.
 3. J. Amer. Geriatric Soc 43:860, 1995.
 4. Ibid. 2.
 5. Ibid.. 1.
 6. Thrash, A. M. and C. L. Thrash, *Poison with a Capital C*. New LifeStyle Books, 1991.
 7. Schardt, D. and S. Schmidt, *Caffeine: The Inside Scoop*. Nutr. Act. 23:10, 1996.
 8. British Heart Journal 72:269, 1994.
 9. T. Am. Med. Assoc. 275:458, 1996.
 10. New Engl. J. Med. 323:1026, 1990.
 11. New Eng. J. Med. 304:630, 1981.
 12. Ibid. 2.
 13. Hansen, R. A., A Doubly Expensive Brew, Natural Lifestyle and Your Health, May 1991.
 14. Lancet 2:1453, 1988.
 15. Ibid., 2.
 16. Am. J. Clin. Nutr. 65:136-143. 1997.
 17. Ibid. 6.
 18. Victor, B. S., M. Lubetsky, J. S. Greden. Somatic manifestations of Caffeinism: J. Ciin. Psychlatry 42: 1 85- 1 88, 1981.
- Table I Source: Craig, W. J. Caffene: It Can Cause Real Havoc Jnl. Hlth. Healing, 19:3, 1996.
- Table II Source: Nieman, D C., D E. Butterworth and C. N. Nieman. Nutrition. Wm. C. Brown Publishers, 1992.

Table 1. Physiological Effects of Caffeine Intake

- o Increases urinary losses of calcium
- o Low birth weight babies with possible birth defects D Decreases fertility
- o Causes insomnia" and disrupted sleep
- o Causes irrtability. nervousness
- o Causes headaches and anxiety
- o Produces alertness at first, then depression
- o Stimulates central nervous system
- o Elevates blood sugar and blood cholesterol
- o Aggravates peptic ulcers

Danger in the Cup

- o Elevates blood pressure
- o Causes irregular heartbeat and palpitations
- o Increases PMS symptoms
- o Produces breast lumps
- o Increases risk of bladder and other cancers

Table II. Caffeine Content of Popular Beverages and Drugs

Coffee (5 ozs. cup) Caffeine Content mgs

Drip method 110-150

Percolated 64-124

Instant 40-108

Name Brand Coffees

Starbucks, grande 16 ozs. 550

Maxwell House 8 ozs. 110

Espresso, double, Starbucks 2 ozs. 70

Tea and Tea Products (5 ozs. cup)

1-min. brew 9-33

2-min. brew 20-46

50-min. brew 20-50

Instant 10-28

Iced tea. 12 ozs. Cup 22-36

Chocolate Products

Hot cocoa, 6 ozs. 2-8

Milk chocolate, 1 oz. 1-15

Baking chocolate, 1 oz. 35

Chocolate milk, 8 ozs. 5

Chocolate-flavored syrup, 2 Tbsp. 4

Soft Drinks (12 ozs. serving)

Mountain Dew 59

Tab 47

Coca Cola 46

Danger in the Cup

Diet Coke 46
Shasta Cola 44
Dr. Pepper 40
Pepsi Cola 38
RC Cola 36

Canada Dry Jamaica Cola 30

Non- Prescription Drugs (Tablet or Capsule)

NoDoz Tablets 200

Vlvarin Tablets 400

Anacin 64

Excedrin 130

Vanquish 66

Aqua-Ban 200

Coryban-D 60

Exatrim 400

Dietac 400

Prescription Drugs

Amaphen 80

Cafergot 200

Darvon compound 65

Fioricet 80

Migralam 200

Percaps 80

Synalagos-DC 60

Triad 80

Wigraine 200