CAFFEINE ANYONE?

So what’s the scoop on caffeine? One minute someone says caffeine is good for you, and the following week you’re reading that it causes exhaustion, fatigue and addiction.

It is estimated that approximately 80% of the world’s population uses caffeine on a daily basis, mainly in the form of coffee, tea, sodas and chocolate, but it is also found in some drugs, ‘decaffeinated’ coffee and tea, and energy drinks. According to Harvard School of Public Health researchers involved in a 22-year study, the overall balance of risks and benefits of coffee consumption, are on the side of benefits. another study from Finland shows that middle aged people who consumed moderate amounts of coffee or tea (3–5 cups per day), were 65% less likely to develop dementia and Alzheimer’s disease by the time they reached their mid-sixties to seventies, compared with those who drank little coffee or avoided it altogether. Other studies suggest that drinking coffee reduces the risk of being affected by Parkinson’s disease, cardiovascular disease, diabetes mellitus type 2, cirrhosis of the liver, and gout.

But not everyone agrees that caffeine is beneficial, and questions remain about what exactly is the cause behind its reported benefits.

There are many new studies which appear to support caffeine but if you look closely, the scientists will not say that caffeine enhances your health and long-term well-being. They might say a particular type or part of chocolate, or caffeine is good for you. Most of coffee's beneficial effects against Type 2 diabetes are not due to its caffeine content but something else, since the benefits are greatest in those drinking decaffeinated coffee. We know that the antioxidants in roast coffee - lipophic antioxidants and chlorogenic acid lactones – are playing protective roles when it comes to protecting nerve cells, but it is unclear by which mechanism this occurs in other organs of the body.

Menopausal women taking estrogen, for instance, will not enjoy reduced risk of Alzheimer’s and Parkinson’s. In fact, their risks were increased. These finding was observed by the same Harvard researchers just mentioned - yet the dangers of drinking coffee to this group of women is rarely reported in popular media.

Some studies point out that coffee consumption does not raise the risk of cardiovascular disease, yet other research has shown that chronic consumption may increase aortic stiffness. Caffeine may contribute to the development of heart disease because it increases cholesterol levels, and a chemical in the blood called ‘homocystein’, a marker for predisposition to heart attack. Unfiltered coffee, especially, can raise blood fats. Even a small amount of caffeine can be detrimental for people who are sensitive to caffeine.

There is much conflicting research around, so above all, people must be their own health advocate and investigate further into whether you are reading industry-funded or independently-funded research.

Scraping the Bottom of the Barrel

Caffeine does not add energy to your system. Instead it burns up your reserves at a quickened pace. This forces your glands to secrete when they don’t have much left to give, leaving you feeling more tired. According to nutritional biochemist Stephen Cherniske in his book, Caffeine Blues, caffeine begins its effects by initiating uncontrolled neuron firing in your brain. Within 5 minutes of drinking your morning coffee, this excess neuron activity triggers your pituitary gland to secrete a hormone, ACTH (adrenocorticotrophic hormone) that tells your adrenal glands to produce adrenalin, a stress hormone that prepares you for ‘flight or fight’. Caffeine also stimulates the production of noradrenaline and reduces the calming neurotransmitter, serotonin.
How much buzz in that cup?
It depends on how the coffee bean or tea leaf or product has been processed, and/or brewed. A dosage of 50 to 100 mg caffeine – typically the amount in one cup of coffee - will make you brain feel more alert, but think again – caffeine has woken you up because it has triggered a stress response and your brain perceives as external threat or danger. Your muscles tense, your blood sugar elevates for extra energy, and your pulse and respiration rates speed up. So what sort of jolt can you expect?

- A 6 ounces cup of Percolated coffee has about 120 mg of caffeine
- Black tea has about 70 mg
- Green tea has about 35 mg
- Brewed decaf coffee has 5 mg of caffeine
- Starbucks brewed coffee has 250 mg per 8 ounces
- Starbucks Latte-Mocha has 75 mg per 16 ounces
- Starbucks Vanilla Grande Frappuchino with whipped cream – 18 ounces contains 430 calories, (130 from fat), 60g sugar and 115 mg caffeine. **NOTE: 3500 CALORIES = 1 pound of FAT**
- Red Bull ‘Monster Mixxd Energy + Juice’ has 80 mgs caffeine
- Tim Hortons ‘large’ coffee has 140 mg caffeine.
- Popular colas have around 45 mg
- Mountain Dew has 54 mg
- Baking chocolate has 35 mg caffeine per ounce

Detrimental Effects of Caffeine:
What could possibly be wrong with something we have been exposed to from an early age in the form of chocolate bars, cough syrups and colas? To start with, caffeine lowers production of DHEA, a hormone critical to the optimum functioning of your immune, cardiovascular, reproductive, and nervous system health. DHEA is an anti-aging hormone and coffee consumption interferes with that process. Though milder in its effects, caffeine manipulates the same neurochemical channels that amphetamine drugs operate on. Overuse of caffeine can result in a number of symptoms including irregular heartbeat, sleeplessness, headaches, nervousness, tremors, irritability, and depression.

Vitamin and Mineral Depletion: Caffeine acts as a diuretic, dehydrating the tissues and blood vessels of your brain. This, in turn, affects short-term memory recall. Its diuretic and adrenal gland stimulating properties have been linked to iron deficiency anemia in infants. Coffee also interferes with the absorption of supplemental iron due to the polyphenols present. Caffeine depletes the body of B vitamins, as well - which you need for proper brain and nervous system functioning and to convert food into energy. B1 or Thiamine deficiency especially, can cause fatigue and nervousness. Caffeine also speeds gastric emptying, thus preventing food nutrients from being properly absorbed in your small intestine. Minerals such as calcium, magnesium, potassium, iron and zinc, are all depleted by caffeine.

Caffeine’s Effect on Blood Sugar: What is happening is that as adrenaline is released, the liver begins to emit stored blood sugar, and you get a temporary ‘lift’ or mood boost. As insulin is released, blood sugar drops below normal. While initially, caffeine may lower your blood sugar, it can lead to increased hunger or cravings for sweets later. You get a short-term boost at the expense of long-term jitters and fatigue. If you continue to drink coffee or other caffeinated beverages throughout the day, you will find yourself in a chronic state of stress throughout the day. Indeed, many scientists have found it exacerbates mood disorders in adults and children, triggering anxiety, depression, and irritability.

Who is most at risk?
The metabolism of coffee depends on the state of the liver. In a healthy liver, caffeine is mostly broken down by the hepatic microsomal enzymatic system. It can take between 3 and 12 hours to detoxify a single cup of coffee. At-risk groups include children, teenagers, men, women, pregnant women, people with fast metabolisms, and the elderly. In short, it affects everyone, young and old.

Because caffeine causes your stomach to produce extra hydrochloric acid, it may aggravate pre-existing conditions such as ulcers and gastroesophageal reflux disease. Elderly individuals with a depleted enzymatic system are especially at risk - even decaffeinated coffee may cause heartburn. In men caffeine increases the risk for prostate and urinary problems. In women caffeine has been linked to fibrocystic breast disease, PMS, osteoporosis, infertility problems, miscarriage, low birth-weight infants, and menopausal problems such as ‘hot flashes’.

Caffeine, like theobromine (found in chocolate), has to be detoxified by the liver, burdening it over time. But caffeine is not the only toxic substance in your daily brew. Coffee contains a host of chemicals, not just caffeine. Among them is a group of extremely toxic compounds called ‘polycyclic aromatic hydrocarbons’ (PAHs). You might remember this word as the cancer-causing agent isolated from barbecued meat.

**Chemicals in your morning Cuppa:**
Commercial coffees contain harmful chemicals. Over 1,000 chemicals have been reported in roasted coffee; more than half of those tested (19 out of 28) are carcinogenic. Instant coffee, for instance, has a much greater amount of acrylamide than brewed coffee. For over 20 years coffee growers have used deadly pesticides on their coffee plants – including chemicals such as Aldrin, Dieldrin, Chlordane and Heptachlor. Thus, coffee is a seemingly benign route for daily toxin consumption.

Finding out whether you are addicted to caffeine is easy. Just give up all of your caffeine sources - including soft drinks – for a couple of days and see if you feel tired, headachy, grumpy and depressed. Headaches and fatigue are the classic signs of caffeine deprivation.

**Strategies to wean yourself off the caffeine habit:**
Upon arising, drink at least 2 glasses of pure water. Once your brain cells are refreshed, you may not even feel like drinking something to ‘wake you up’. Also:

- Gradually reduce the amount you are consuming, i.e., 3 cups of coffee, tea or soda per day during week 1; 2 per day during week 2; 1 during week 3; and none in week 4.
- Gradually replace coffee with decaf. During week one, use half regular coffee and half decaf; week 2, use ¼ regular coffee and the rest decaf; week 3 start drinking only decaf (this is not the best strategy as even decaf contains caffeine).
- Whatever strategy you use, stick with it. Taking magnesium glycinate or citrate will help with headaches.

**Other Ideas for staying caffeine-free at home:**
Instead of reaching out for your morning cup of coffee, you can do your body a big favour by eating a healthy breakfast instead. A good breakfast, followed by a healthy lunch, will keep you feeling energetic all day. There are many caffeine-free herbal teas available (i.e., camomile, mint, raspberry leaf), but when looking for a tasty coffee alternative, you can try:
• Teeccino – herbal coffee made of roasted carob, barley, chicory root, figs, dates, orange peel and almonds.
• Ayurved Roast – an organic blend made with ashwagandha, shatavari, and brahmi herbs.
• Roasted carob – lightly roasted carob powder has a light mocha flavour.
• Yerba maté – this grassy tasting tea contains caffeine, however preliminary evidence suggests its caffeine affects muscles tissues versus the central nervous system. Know that this has a stimulating effect on both myocardial (heart muscle), as well as smooth muscle tissue.
• Grain coffees (these contain ingredients such as almond, asparagus, malted barley, okra seed, potato peel, sassafras, and dandelion root).

Here’s a recipe for a roasted carob smoothie that you can try today. In a blender place:

1 cup organic almond milk (hot or cold)
1 heaping tablespoon roasted carob powder
3 pitted dates or a few drops of maple syrup to taste (can also try ¼ teaspoon stevia)
1 teaspoon pure vanilla
Optional: 5 or 6 soaked walnuts

Whizz for 30 seconds and enjoy.

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8 Ibid.
10 The Memory Solution, Dr. Julian Whitaker, p. 261.


Polyphenols are antioxidants which are protective against cancer, however they act to remove iron from the body. See: Dewey, Kathryn G; Romero-Abal, Maria Eugenia; Quan de Serrano, Julieta; Bulux, Jesus; Peerson, Janet M; Engle, Patrice; Solomons, Noel W (July 1997). "Effects of discontinuing coffee intake on iron status of iron-deficient Guatemalan toddlers: a randomized intervention study". *American Journal of Clinical Nutrition* **66**(1): 168–76.


"Disease prevention and treatment", Life Extension Foundation, p. 739.


A booklet, “What you should know about Caffeine” published by the International Food Information Council, Washington, D.C., states that “Caffeine is normally excreted within several hours after consumption”. Many other scientists fiercely oppose this finding saying that it can take up to 12 hours to detoxify a single cup of coffee. Less than 1% is excreted and the remaining 99% must be excreted by the liver. Supporters of the IFIC include Coca Cola, M&M, Nutrasweet, Nestle, and Hersheys.


