Caffeine's effects on health [1]

Hi Alice,

I drink a lot of Diet Coke in one day. I would guess I would finish off three or four two-liter bottles in one day. I am wondering what the effects of the caffeine are doing to my body. (I feel fine.) Sometimes I would drink caffeine-free soda. I'm very confused about if caffeine is good or bad for you, as well. And do I get enough sleep as well? I know I must be addicted to the caffeine by now! And is that bad for me? Thank you.

— addicted caffeine drinker

Answer

Dear addicted caffeine drinker,

While caffeine in moderation generally doesn't pose health risks, large amounts of caffeine may cause some undesirable side effects. Caffeine belongs to a group of stimulants called xanthines. After drinking a caffeinated beverage, the characteristic “pep in your step” many people seek reaches its highest point within 30 to 60 minutes and that boost may keep you going for around four to six hours. About 90 percent of Americans have caffeine on any given day, the average amount being about 170 to 200 milligrams a day (approximately equivalent to what's found in 1 to 2 8-ounce cups of coffee, 3 to 4 12-ounce cans of caffeinated soda, or 4 8-ounce cups of tea). As you make mention, caffeine can disrupt sleep. So if you're consuming too much for you, it may result in you getting less sleep.

Many of the side effects people experience are the result of caffeine’s stimulant effect. In general, these symptoms are among the most common of caffeine's effects on people's bodies when taken in high doses (e.g., more than 8 8-ounce cups of coffee a day). However, these same symptoms may still occur from lesser amounts as well, since some people are just more sensitive to caffeine than others. Ultimately, above-average consumption might not mean you're getting too much caffeine. Every person responds differently to caffeine — some of the side effects of having too much caffeine include:

- Feeling anxious, restless, or dizzy
- Frequently having to use the bathroom
- Experiencing an increased heart rate and palpitations
- Experiencing muscle tremors and twitches
- Having an upset stomach
- Having headaches that don't seem to go away
- Having trouble with sleeping
- Being dependent (meaning you need to consume more caffeine to achieve same results as before)

As for caffeine's impact on health and disease, these relationships have been less clear. While researchers have studied whether different amounts of caffeine may affect risk for a number of health conditions (including osteoporosis, cancer, and even birth defects, to name a few), results have been inconclusive or inconsistent in definitively linking caffeine with any disease or illness. What is known is that caffeine is a diuretic (making the body expel water), which may interfere with its ability to effectively absorb calcium. In addition, caffeine stimulates the release of acid in the stomach, which is the reason behind the symptoms of upset stomach. If the acid release is really severe, some people may experience gastroesophageal reflux. Lastly, excessive consumption of caffeine may elevate your blood pressure.

With that all said and drank, it's recommended that certain populations, such as those who are pregnant or breastfeeding, have a history of fast or irregular heartbeats, or have high blood pressure, have migraines, or are taking certain medications, consult with their health care provider to determine if limiting or avoiding caffeine all together is appropriate for them.

If you're concerned with how much caffeine you're consuming, you may consider cutting back. However, there may be no need to quit caffeine cold-turkey. You may consider gradually switching over to a diet cola beverage that's caffeine-free, or at least alternating between the two. Making sure to drink plenty of water every day might also help minimize withdrawal symptoms, such as:

- Sleepiness
- Feeling overtired
- Prolonged headaches
- Irritability
- Difficulty focusing on tasks
- Nausea

*Both lists adapted from MedlinePlus [3] and Mayo Clinic [4].*

For the caffeine contents of various foods and drinks, check out the Go Ask Alice! Q&A Caffeine content [5].

Cheers!

Alice!

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Published date:
Apr 16, 1999
Last reviewed on:
Dec 13, 2019

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