

## CAFFEINE

### COFFEE TEA COLAS CHOCOLATE

You know that caffeine occurs in coffee, tea, cola and chocolate. Heavy consumption of this chemical doubles your need for calcium because, as the body strains to eliminate what it perceives as poison, it flushes calcium from the body, via the kidneys. It also allows more calcium to be secreted into the gastrointestinal tract. Because of this, three cups of coffee per day increases your osteoporosis risk by 82 percent!

Caffeine is often hidden. For example, according to an article by Jill Margo in *The Australian*, as long ago as 2000, a 25-year-old West Australian woman died following a massive dose of caffeine. She had not, however, been drinking coffee, but a fashionable drink called *Race 2005 Energy Blast*. This drink, like some other sports drinks, contains guarana, which is high in caffeine. Had she known the drink contained caffeine she would not have drunk it, because she knew caffeine was dangerous for her health. But caffeine was not listed as an ingredient. This woman, according to the inquest into her death, paid with her life due to this omission. The Commonwealth Department of Health concurred, ruling that caffeine was considered likely to have contributed to her death.

Please do not decide to switch to decaffeinated drinks! Dangerous chemicals are used to remove the caffeine, and government regulations permit traces of it to remain. The US National Cancer Institute has warned that these chemicals cause liver cancer in mice.

When asked to comment on this warning, a General Foods spokesman said, "It is most regrettable that consumers have to have their confidence undermined by this kind of information." He didn't even try to deny that his company used cancer-causing chemicals; apparently, he was just upset that the public had found out about it.

## **Soft Drinks**

Everything said about the dangers of caffeine also applies to soft drinks, since they contain caffeine in abundant quantities. The caffeine in cola drinks is even more harmful because it is more concentrated, and not wrapped up with tannic acids as in coffee and tea.

Phosphoric acid in soft drinks combines with calcium in the body and causes it to be excreted in the urine, leading to demineralization of the bones. Phosphoric acid also leads to kidney and bladder stones, and stones which get caught in the urethra. Not a pleasant experience!

There are 12 to 15 teaspoons of sugar in a 600ml bottle of non-diet soft drinks. The sugar is needed because the phosphoric acid makes the acidity of soft drinks like that of vinegar, and it would be undrinkable without lots of sugar and flavourings. Persist in drinking this rubbish and your bones will crumble.

## **Chocolate**

There are five bone enemies in that tempting chocolate treat: sugar, caffeine, lecithin to make it smooth, oxalic acid, (notorious for combining with calcium and magnesium and rendering them useless), and *theobromine*, a caffeine-related alkaloid that causes genetic damage. Pure cocoa powder is safe, and delicious when doctored with healthful ingredients, and carob tastes like chocolate, is healthful and contains lots of calcium.

## **CAFFEINE POWDER**

Pure and highly concentrated caffeine products are now classified as risk food in Australia, and anyone trying to import them for retail sale could face up to 10 years in jail.

The Federal Government has tightened Australian food regulations following the death of a NSW man from caffeine toxicity in 2018.

Lachlan Foote, 21, died on New Year's Day, 2018 after drinking a protein shake with a teaspoon of pure caffeine powder.

His father Nigel Foote said his son had “innocently” added too much pure caffeine powder.

Caffeine powder will be banned in Australia and New Zealand “because in its pure form it can be lethal in quantities as small as one teaspoonful”. Bans will apply to products where caffeine concentration is 5 per cent or more in solid foods, and 1 per cent or more in liquid foods.

The ban would not affect products like coffee, energy or cola drinks, which had much lower concentrations.

### **Energy Drinks**

In addition to caffeine, most energy drinks advertise a special blend of other herbs and ingredients. Sugar free varieties exist, but most energy drinks also contain large amounts of sugar. The “energy providing” elixirs are usually combinations of guarana, taurine, ginseng, and B vitamins.

We would challenge anyone to find an energy drink whose marketing messages are in line with the abilities of what’s in the can. Michigan State University's Kalamazoo Center for Medical Studies reports that the ginseng content of most energy drinks falls well below most dietary supplement guidelines.

A concern with the use of the herbs in these drinks is their source. Manufacturers of energy drinks are not required to list whether or not the herbs they use have been sprayed with toxic pesticides, irradiated or watered with contaminated water supplies. There is no way of knowing what other toxins are contained in these drinks and whether or not these herbs will have a negative effect.

Based on the 2010 National Health Interview Survey data, the CDC reported that one in three adults consumed an energy drink within the past week, 21% had one more than once in the last week, and 11% consumed more than three energy drinks per week. <sup>[5]</sup> It raises the question -- what’s going on in our lives and personal health for us to be so reliant on a

constant stream of turbo juice?

The dangers associated with energy drinks are getting attention – because of the sheer volume of energy-stimulating products in the marketplace, and the ease of access to these by minors.

While most energy drinks don't have as much caffeine as a Starbucks' coffee, they are heavily sweetened, have a host of other ingredients, and are easy to drink, which appeals more to younger people.

Therefore, we are seeing increased incidents of those 18 and younger having dangerous side effects from consuming too many energy drinks at one time. We are also seeing health ramifications from consuming too many energy drinks daily over an extended period of time.

1. **Cardiac Arrest:** While a Caffeine Calculator can show people how many energy drinks at one time would be lethal, this formula doesn't apply to everyone. Those with underlying heart conditions have gone into cardiac arrest after just a few energy drinks. Before drinking energy drinks or caffeine, be sure to know your heart's health. A new study showed that energy drinks cause forceful heart contractions, which could be harmful to some with certain heart conditions. One study showed that over two years there were 4854 calls to poison control centers regarding energy drinks. 51% of these calls involved children. Another study showed the link between energy drinks and cardiac events among teens. This study recommends that teens consume no more than one 250 ml energy drink per day, and not before or during sports or exercise. A study showed that 18-40-year-olds who drank energy drinks had a significant increase in their QTc interval, which is a marker of abnormal heart rhythm risk.

Research in 2018 showed that just 90 minutes after consuming a 24-oz energy drink, the inner diameter of arteries was halved. It's thought that the high level of sugar and caffeine were to blame.

2. **Headaches and Migraines:** Too many energy drinks can lead to severe headaches from caffeine withdrawal symptoms. Changing the amount of caffeine you ingest daily can cause more frequent headaches.
3. **Increased Anxiety:** Those with two different genetic variations in their adenosine receptors are prone to feeling increased anxiety when consuming caffeinated beverages, such as energy drinks. Larger doses of caffeine can even spur on full-blown panic attacks.
4. **Insomnia:** Energy drinks do a good job of keeping people awake, but when abused, they can cause some people to miss sleep. This lack of sleep causes impaired functioning, and can cause dangers when driving or performing other concentration-heavy tasks.
5. **Type 2 Diabetes:** Because many energy drinks are also very high in sugar, they can eventually wear out the insulin-producing cells of the pancreas, which leads to type 2 diabetes.
6. **Drug Interaction:** Ingredients in energy drinks can interact with prescription drugs, especially antidepressants.
7. **Addiction:** Yes, we can become addicted to caffeine and energy drinks.
8. **Risky behavior:** A study published in The Journal of American College Health showed that teens are more likely to take dangerous risks when high on caffeine.
9. **Jitters and Nervousness:** Too much caffeine from energy drinks causes some people to shake and manifest anxiety.
10. **Vomiting:** Excessive energy drinks can lead to vomiting. This causes dehydration and acid erosion of teeth and esophagus.
11. **Allergic Reactions:** Ranging from minor itching to airway constriction.
12. **High Blood Pressure:** Caffeinated products can elevate a person's blood pressure. Those with already elevated blood pressure could be placing themselves at risk of stroke and other health problems related to hypertension. A study conducted by The Mayo Clinic found that Rockstar Energy Drink (240 mg version) significantly raised the blood pressure of study participants compared to the placebo drink. Overall, there was a 6.4% increase in average blood pressure. A recent study

published by the American Heart association showed that energy drinks have a greater effect on blood pressure than drinks that contain caffeine alone as the active ingredient. They believe the combination of ingredients in energy drinks are why these beverages pose a greater risk of heart-related problems than drinks such as coffee or tea.

13. **Niacin Overdose:** Niacin (Vitamin B3) is placed in most energy drinks at levels that cause no harm. However, if a person is taking additional supplements containing Niacin, overdosing on the vitamin is possible when consuming energy drinks. Symptoms include; Skin flushing, dizziness, rapid heart rate, vomiting, itching, gout and diarrhea. The British Journal of Medicine recently published a case study of a man who experienced nonviral hepatitis from B3 toxicity – believed to have been from consuming excessive energy drinks during a period of three weeks.

14. **Stress Hormone Release:** A study conducted by The Mayo Clinic found that a 240 mg version of Rockstar Energy Drink caused an increase in stress hormone release. The average norepinephrine level of the participants increased by 74%, while the placebo only caused a 31% increase.