

# Caffeine ●

## What is caffeine?

Caffeine is a stimulant drug, which means it speeds up the messages travelling between the brain and the body.

It's found in the seeds, nuts and leaves of a number of different plants, including:

- coffea Arabica (used for coffee)
- thea sinensis (used for tea)
- cola acuminata (used as a nut, tea or in soft drinks including cola)
- theobroma cacao (used in cocoa and chocolate)
- paullinia cupana (used as guarana in snack bars and energy drinks).<sup>1</sup>

## How is caffeine used?

Caffeine is used in a number of different products. The amount of caffeine in these products can vary dramatically, so it's always best to check the label. The average amounts are listed below.

| Product  | Average caffeine content (mg/100 ml) |
|--|--------------------------------------|
| Red Bull®  | 32.0                                 |
| Mountain Dew®                                    | 15.0                                 |
| Coca Cola®                                       | 9.7*                                 |
| Diet Coke®                                       | 9.7*                                 |
| Coke Zero®                                       | 9.6*                                 |
| Brewed black tea                                 | 22.5                                 |
| Brewed green tea                                 | 12.1                                 |
| Coffee, cappuccino                               | 101.9                                |
| Coffee, flat white                               | 86.9                                 |
| Coffee, long black                               | 74.7                                 |
| Coffee, from ground coffee beans, espresso style | 194.0                                |
| Chocolate, milk with added milk solids           | 20.0                                 |
| Chocolate, dark, high cocoa solids               | 59.0                                 |

Adapted from Food Regulation Standing Committee, Caffeine Working Group. (2013). The regulation of caffeine in foods.

\*The Coca-Cola Company. (2015). Caffeine: Your questions answered.

<http://www.coca-colacompany.com/stories/0000014b-079f-da6b-ad6f-6fdf6be40000/>

## Effects of caffeine

**There is no safe level of drug use.** Use of any drug always carries some risk. It's important to be careful when taking any type of drug.

Caffeine affects everyone differently, based on:

- size, weight and health
- whether the person is used to taking it
- whether other drugs are taken around the same time
- the amount taken.

The following effects may be experienced between 5 to 30 minutes after consuming caffeine, and may continue for up to 12 hours:

- feeling more alert and active
- restlessness, excitability and dizziness
- anxiety and irritability
- dehydration and needing to urinate more often
- higher body temperature
- faster breathing and heart rate
- headache and lack of concentration
- stomach pains.<sup>3</sup>

Children and young people who consume energy drinks containing caffeine may also suffer from sleep problems and anxiety.<sup>4</sup>

## Overdose

If a large amount of caffeine is consumed it could also cause an overdose. If you experience any of the following effects, call an ambulance straight away by dialling triple zero (000).

Betel nut affects everyone differently, based on:

- tremors
- nausea and vomiting
- very fast and irregular heart rate
- confusion and panic attack
- seizures.<sup>5</sup>

It's possible to die from having too much caffeine, but this is extremely rare. This would usually only happen if 5–10g of caffeine (or 80 cups of strong coffee) were consumed one after the other.<sup>1</sup>

In small children, caffeine poisoning can happen if a lower amount, such as around 1g of caffeine (equal to around 12 energy drinks) is consumed one after the other.<sup>6</sup>

## Coming down

Some people consume drinks with caffeine so that they can continue working or studying at night. However, the after-effect is that they will feel tired and lethargic the next day.

## Long-term effects

Regular, heavy use of caffeine (such as more than 4 cups of coffee a day) may eventually cause:

- nervousness
- difficulty sleeping
- restlessness
- irritability and headaches
- dizziness and ringing in the ears
- muscle tremor
- weakness and fatigue
- rapid heart rate and quickened breathing rate
- poor appetite, nausea, vomiting and diarrhoea
- increased thirst, frequent urination or increased urine volume
- irregular heart rate or rhythm
- low blood pressure with faintness or falls
- seizures, confusion or delirium.<sup>3</sup>

## Using caffeine with other drugs

The effects of taking caffeine with other drugs – including over-the-counter or prescribed medications – can be unpredictable and dangerous, and could cause:

- **caffeine + alcohol:** enormous strain on the body, and can mask some effects of alcohol such as falling asleep, leading to drinking more and risk taking behaviour.
- **caffeine + other stimulant drugs:** increase the risk of cardiovascular problems.

## Withdrawal

Giving up caffeine after using it for a long time is challenging because the body has to get used to functioning without it. Withdrawal symptoms usually start within 24 hours after the last dose. The symptoms can last for around 36 hours, or even longer for people who consume a lot.

These symptoms can include:

- headache
- marked fatigue or drowsiness
- dysphoric, depressed mood or irritability
- difficulty concentrating
- flu-like symptoms (nausea, vomiting or muscle pain/stiffness).<sup>7</sup>

Find out more about withdrawal at [adf.org.au/alcohol-drug-use/supporting-a-loved-one/withdrawal/](http://adf.org.au/alcohol-drug-use/supporting-a-loved-one/withdrawal/)

## Getting help

If your use of caffeine is affecting your health, family, relationships, work, school, financial or other life situations, you can find help and support.

Help and support services directory: [adf.org.au/help-support/support-services-directory/](http://adf.org.au/help-support/support-services-directory/)

Information about treatment: [adf.org.au/alcohol-drug-use/supporting-a-loved-one/treatment/](http://adf.org.au/alcohol-drug-use/supporting-a-loved-one/treatment/)

### Caffeine statistics

- In Australia between 2004 and 2010, there were 297 calls to the NSW Poisons Information Line concerning toxicity from caffeinated energy drinks. The most commonly reported symptoms included palpitations/tachycardia, tremors, shaking, agitation and restlessness.<sup>10</sup>

### Consumption

- Australian coffee consumption has increased from 0.5kg per person in 1940 to 2.4kg per person in 1998.<sup>9</sup>
- According to Roy Morgan Research in the last decade coffee consumption by Australian adults has declined slowly but steadily, from 10.5 cups to 9.2 cups per week. Though, cafe visits and owning a coffee machine is on the rise.<sup>11</sup>
- Sales of energy drinks in Australia and New Zealand increased from 34.5 million litres in 2001 to 155.6 litres in 2010.<sup>12</sup>

References

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10. Australian Food News. (2014), *Average Australian coffee consumption drops, but cafe visits continue to grow*, research
11. Canadean. (2011). *Canadean Soft Drink Service – Australia and New Zealand energy drink consumption volumes 1999–2016*. July 2011.

Always call an ambulance on triple zero (000) if an overdose is suspected: tell the paramedic exactly what has been taken. Paramedics are there to help and will not involve the police unless there is a danger to themselves or others.

**Other help, support services and resources**

Links to further help and support • [adf.org.au/help-support/](http://adf.org.au/help-support/)

Information on types of drugs • <https://adf.org.au/alcohol-drug-use/effects/drug-types/>

**Further information**

**DrugInfo • 1300 85 85 84**

Free confidential information and advice about alcohol and other drugs (9am - 5pm, Mon-Fri)

**Family Drug Help • 1300 660 068 • [www.familydrughelp.com.au](http://www.familydrughelp.com.au)** (Victorian-based)

Services are available to support those around you who may be affected by your drug use. As well as providing understanding, they can provide information about how best to help during treatment.

**Family Drug Support • 1300 368 186 • [www.fds.org.au](http://www.fds.org.au)** (Australia-wide)



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