

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)
- Camelia sinensis (used for tea)
- Cola acuminata (used as a nut, tea or in soft drinks including cola)
- Theobroma cacao (used in cocoa and chocolate)
- Paulinia cupana (used as guarana in snack bars and energy drinks)

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, but the average amounts are listed below.

Product	Average caffeine content (mg/100ml)
Red Bull®	32.0
Mountain Dew®	15.0
Coca-Cola®	9.7*
Diet Coke®	12.8*
Coke Zero®	9.6*
Brewed black tea	22.5
Brewed green tea	12.1
Coffee, cappuccino, double shot	101.9
Coffee, flat white, double shot	86.9
Coffee, long black, double shot	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.*

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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

Children and young people who consume energy drinks containing caffeine may also suffer from sleep problems, bed-wetting and anxiety.

Overdose

If a large amount of caffeine is consumed it could also cause an overdose. If any of the following effects are experienced an ambulance should be called straight away by dialling triple zero (000).

- Tremors
- Nausea and vomiting
- Very fast and irregular heart rate
- Confusion and panic attack
- Seizures

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

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

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:

- Osteoporosis
- High blood pressure and heart disease
- Heartburn

Regular, heavy use of caffeine may eventually cause anxiety.

- Ulcers
- Difficulty sleeping
- Infertility (in men and women)
- Anxiety
- Depression
- Needing to use more to get the same effect
- Dependence on caffeine

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 – or even within 6 hours for people who consume a lot of caffeine regularly. The symptoms can last for around 36 hours, or even longer for people who consume a lot.

These symptoms can include:

- Headache
- Tiredness
- Sweating
- Muscle pains
- Anxiety and tension

Further Information

The Druginfo website has information on:

- Energy drinks
- Cognitive enhancers (smart drugs)
- Help & support services
- Treatment
- References for this fact sheet

Go to druginfo.adf.org.au

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