

Caffeine

Patient Education Module

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: coffee 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), and paulinia cupana (used as guarana in snack bars and energy drinks).

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

Effects of caffeine

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	Dehydration and needing to urinate more often
Restlessness, excitability and dizziness	Higher body temperature
Anxiety and irritability	Headache and lack of concentration
Faster breathing and heart rate	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 dialing 911:

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

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 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	Heartburn
High blood pressure	Difficulty sleeping
Depression	Ulcers
Heart disease	Needing to use more to get the same effect
Infertility (in men and women)	Dependence on caffeine
Anxiety	

Using caffeine with other drugs

The effects of taking caffeine with other drugs, including prescribed medications, can be unpredictable and dangerous, and may cause:

Caffeine + other stimulant drugs = increase the risk of cardiovascular problems.

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 behavior.

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:

Anxiety and tension	Tiredness
Muscle pains	Sweating
Headache	