

## CAFFEINE AND ENERGY DRINKS



### Street names

Brew, java, cuppa, pick-me-up, heart starter, energy drinks, soft drinks.

### What is it?

Caffeine is a mild stimulant drug that speeds up messages to the central nervous system making people feel alert and less drowsy. It is a naturally occurring substance found in the seeds, nuts and leaves of various plants, including coffee beans, tea leaves, cocoa beans, kola nuts and guarana seeds.

### What does it look like?

Caffeine is found in many products including coffee, tea, energy drinks (Red Bull, Mother, etc.) soft drinks (Coca Cola, Mountain Dew) and chocolate. The amount of caffeine in these products can vary dramatically – with an espresso containing approximately 150mg of caffeine, 1 tsp. instant coffee containing 80mg, a cup of tea containing 10-50mg, a can of energy drink (250ml) containing 80mg, a can of Coca-Cola (375mL) containing 50mg and a 100gram dark chocolate bar containing 120mg.

Caffeine also comes in a tablet (No-Doz-200mg) and powder form - often sold as a fitness supplement. Caffeine powder was banned in Australia in 2019 following the death of a healthy young man from acute caffeine toxicity after he added a teaspoon of caffeine powder to his protein drink.

### How is it usually taken?

Swallowed.

### Immediate effects

The following effects may be experienced between 5 to 30 minutes after consuming caffeine, and may continue for up to 12 hours depending on how much is consumed:

- 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

### Long-term health effects

Regular and heavy use of caffeine (more than 600 mg per day) may lead to:

- Bone loss (osteoporosis) in post-menopausal women
- Cardiovascular problems
- Heartburn
- Ulcers
- Difficulty sleeping (insomnia)
- Anxiety
- Depression

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## Energy drinks

Energy drinks have become increasingly popular and are marketed to young people, students and athletes to provide a boost of energy and enhance mental performance. In Australia, energy drinks are legally only allowed to contain 80mg per 250 mL which is the equivalent of an average cup of instant coffee.

## Mixing caffeine with other drugs

Using caffeine with stimulant drugs, such as cocaine, MDMA (ecstasy) and methamphetamine, can increase the toxic effects of each drug particularly on the cardiovascular system.

Energy drinks are commonly consumed with alcohol (i.e. Red Bull and Vodka) and may mask the sedative effects of alcohol however, they do not reduce the level of alcohol intoxication or impairment on cognitive and motor functioning. Research has found that people who consume energy drinks with alcohol often drink more alcohol and are at increased risk of alcohol-related harm.

Caffeine may also interact with other drugs, including over-the-counter and prescribed medications, and may increase the effects of other psychoactive substances.

## Caffeine withdrawal

Many people who consume caffeine daily will experience a withdrawal within 12-24 hours of ceasing use. The withdrawal can last for 1-2 weeks (and is most intense in the first two days).

The main symptoms of a caffeine withdrawal are:

- Headaches
- Fatigue
- Drowsiness
- Nausea
- Depression
- Difficulty concentrating and inability to think clearly

- Irritability
- Anxiety
- Sweating
- Muscle pains and weakness.

## Other things to consider/harm reduction advice

- Approximately 400 mg of caffeine per day is generally considered safe for healthy adults
- Children and adolescents should limit their intake of caffeine to about 100mg per day
- For energy drink consumers – it is recommended to not consume more than two small cans (250mL) or one large can (500mL) per day
- If quitting caffeine – it is best to gradually reduce the amount of caffeine used daily to minimise the withdrawal symptoms
- While overdose from caffeine is rare – it has occurred and very high doses (between 5-10 g) in adults can be fatal
- Energy drinks are not recommended if pregnant or breastfeeding