

Know the facts...

CAFFEINE

Caffeine is the main ingredient thought to provide the kick in alertness after drinking an energy drink. The caffeine content of an energy drink may come from a number of sources, including guarana, a herbal extract. In Tasmania the caffeine content of a standard energy drink is roughly equivalent to a cup of coffee of the same size (i.e., about 80mg per 250ml).

Some researchers argue that the sugars (e.g., glucose, sucrose) may also interact with the caffeine to provide the energy drink “boost”. However, the amount of sugar (25g-32.5g or 6 to 8 teaspoons) in a standard energy drink is roughly equivalent to the sugar content of a cola drink of the same size, so other researchers argue that it is included to make the drink taste better.

What are energy drinks?



Energy drinks are beverages advertised as increasing alertness and endurance and improving performance, such as Red Bull®, Mother®, Monster®, V®, and Rockstar®

Common energy drink ingredients include caffeine, glucuronolactone, taurine, sugars (e.g., glucose, sucrose), as well as other B vitamins (e.g., niacinamide, pantothenic acid) and herbal extracts (e.g., guarana, ginseng).

Energy drinks can be packaged as a standard drink (approximately 250ml), super-size drink (approximately 500ml), or shot drink (approximately 60ml).

Energy drinks are different to sports drinks such as Gatorade® and Powerade® in that they do not rehydrate after exercise, instead having a diuretic effect (i.e., they decrease the amount of water in the body by increasing urine production).

Do energy drinks give you a “boost” in energy and performance?

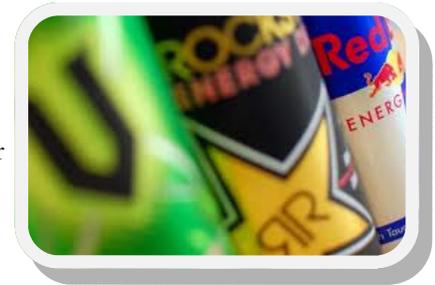
- Most of the research has shown that people have faster reaction times, greater concentration, speedier information processing, improved memory for numbers, and better anaerobic and aerobic performance after consuming an energy drink. People also report feeling less tired, sleepy, stressed, and anxious, and are more energetic and alert.
- However, there is no research at present to tell us whether energy drinks provide more of a boost than a cup of coffee or whether their effects are the same.
- Also, drinking more energy drinks does not always equal better performance. People can only consume a certain amount of caffeine before their performance is negatively impacted. The amount of caffeine a person can consume before they see a negative effect on performance differs according to many factors, including body weight and size, fatigue, and their experience with caffeine.



Alcohol, Tobacco & other
Drugs Council Tas Inc.

What are the negative effects?

Energy drinks are safe when used in moderation by people who regularly use caffeine. The majority of the negative side-effects occur when people aren't accustomed to consuming caffeine or have a medical condition which is negatively affected by caffeine, or when people consume too many energy drinks or use energy drinks with other caffeine products or drugs. Short-term negative side effects may include:



Nervousness	Headache	Nausea
Restlessness	Diuresis	Tremors
Dizziness	Energy jolt then crash	Increased/irregular heart rate
Difficulty concentrating	Faster talking speed	Increased blood pressure
Flushed face	Sleep difficulties	Rapid breathing
Anxiety	Gastric upset	

In extreme cases, energy drinks have been associated with seizures, strokes, cardiac arrest, hallucinations, acute mania, and deterioration of prior psychiatric illnesses.

There are also long-term effects from using caffeine regularly for a long time or stopping caffeine when accustomed to regular use.

Maximum energy drink intake per day should generally be two standard energy drinks or one super-size energy drink. Australian guidelines recommend maximum daily consumption of 160mg caffeine, 2000mg taurine, and 1200mg glucuronolactone in energy drinks.

- People should be cautious when consuming energy drinks with other caffeine products (e.g., coffee, tea, chocolate, cola drinks), as this will increase overall caffeine intake and consequently increase the risk of negative side-effects.
- Energy drinks should not be used with other stimulants or depressants, as it can confuse or overload the central nervous system. The majority of emergency department visits involving energy drinks have been due to people consuming energy drinks when they are under the influence of alcohol, prescription medication, or illicit drugs.
- Separate the product from the marketing. Energy drinks are associated with sport, masculinity, and risk-taking by their marketing strategies. However, consuming energy drinks does not offer any additional protection when doing activities which could result in injury or harm.

How to avoid the effects

People should avoid drinking energy drinks if they:

- Are aged 15 or under
- Are pregnant or lactating
- Have rarely used caffeine
- Need rehydration after exercise
- Take medication which has negative side-effects when consumed with caffeine

You should also avoid energy drinks if you are diagnosed with:

- Diabetes
- Hypertension
- Cardiac condition
- Sleep disorder
- Eating disorder
- Anxiety disorder
- Seizure disorder (epilepsy)
- Other psychological disorder that may be worsened by energy drink use (e.g., mania)