

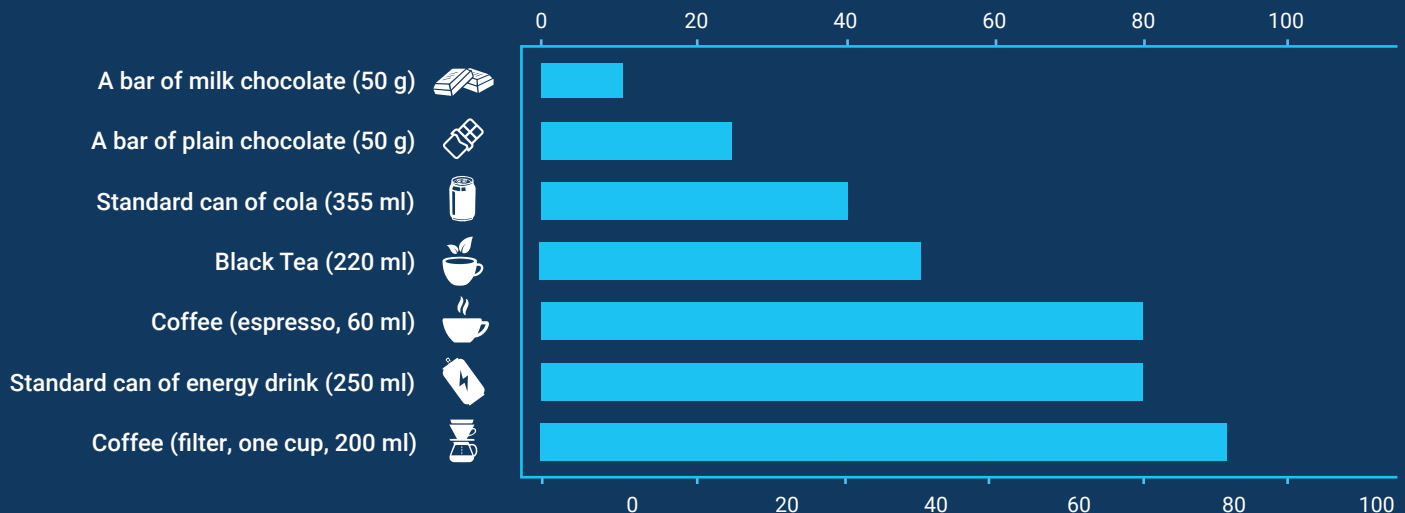
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Around the world, foods and beverages containing caffeine are frequently found in the diet. The following infographic details the main sources of caffeine, typical amounts of caffeine found in foods and beverages, how caffeine affects the body and the current recommendations for caffeine consumption.

Caffeine is found in many different plant species¹



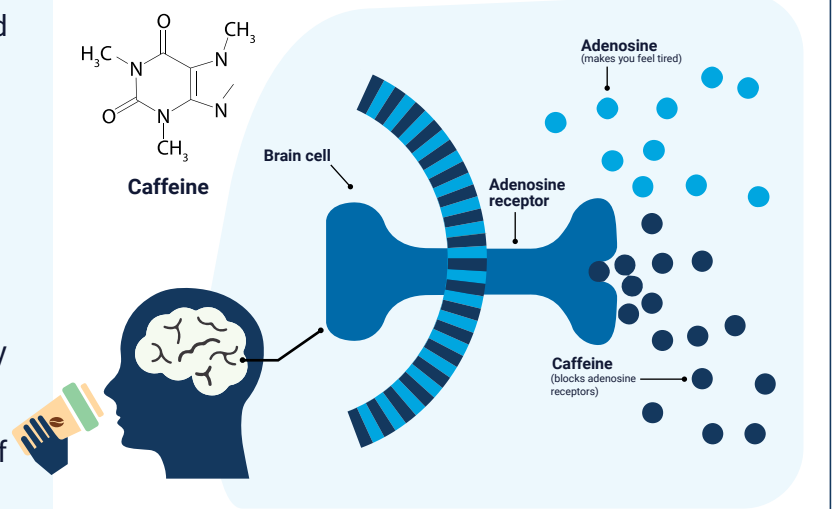
Caffeine content in different products



Caffeine content in products such as coffee and chocolate can vary depending on the ingredients used, the manufacturing process and other factors²

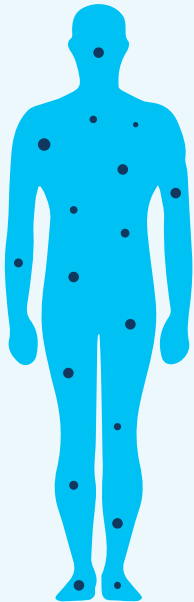
What is caffeine and how does it work?

- Caffeine (1,3,7 - trimethylxanthine) is found in several edible plants and can also be produced synthetically¹
- Caffeine acts mainly within the brain and central nervous system (CNS) as an antagonist to adenosine receptors³; adenosine receptors are widely dispersed throughout the body⁴
- Activation of adenosine receptors normally leads to a feeling of tiredness. As caffeine is a stimulant, it blocks the adenosine receptors which then promotes a feeling of energy⁵



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Everybody experiences caffeine differently



When consumed, caffeine is highly metabolized by the liver (99%)⁶, it reaches peak levels in the blood 30-120 minutes after consumption⁷ and can cross the blood-brain barrier⁸

Our genetics can significantly impact our physiological and psychological responses to caffeine.^{9,10}

The effects of caffeine (such as increased alertness, attention and physical endurance during exercise) may be felt when consumed at levels between 75mg - 200mg (or more)¹¹; any effects (and how strongly they are felt), depends on the individual.^{9,10}

At lower doses (~75mg), evidence shows that caffeine improves mood but at higher doses (typically ~200mg) nervousness, jitteriness, irritability and sleep disorders can be reported.²

Caffeine is also known to be a mild diuretic (causes the body to lose water), though this is unlikely to have a negative effect on healthy adults.²

Current recommendations for caffeine consumption

The European Food Safety Authority concluded in a 2015 safety review of caffeine that depending on population group, consuming caffeine within the following ranges 'would not give rise to safety concerns'²



Children

No more than 3mg of caffeine per kg of body weight per day. e.g., for a child of 40kg, this equates to 120mg per day²



Adults

Maximum 400mg per day (all sources), maximum 200mg in a single serving²



Pregnant and breastfeeding women

Maximum 200mg per day (all sources)²

The European Food Safety Authority looked at the evidence and agreed that caffeine can improve concentration and increase alertness at doses of at least 75 mg per serving, however this claim has not been officially approved by the European Union.¹¹

References

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