



Behind the hype:

# Caffeine

## Why is this an issue?

Caffeine is a mild stimulant producing a range of effects on the body, usually more pronounced when larger amounts are consumed. Caffeine provides no nutritional benefits. When consumed in small amounts, caffeine has minimal effects on health but larger amounts can be harmful.

## What are the dietary sources of caffeine?

Caffeine is naturally occurring in tea, coffee, chocolate, cocoa, kola nut and guarana. It is also added to soft drinks, energy drinks, alcoholic drinks and some supplements. When caffeine is added as an ingredient to food and beverages, it can either be naturally sourced (eg, guarana added to soft drinks/energy drinks) or in a processed form (eg, kola added to soft drinks).

## What does caffeine do in the body?

Caffeine is a mild stimulant and affects the brain, heart and gut. Changes to the body may include increased blood pressure, heart rate and urination as well as digestive problems. While small amounts can make you more alert and postpone feelings of fatigue, negative effects such as sleep disturbance, headaches, abnormal or irregular heart rate, irritability, tremors and anxiety may be experienced, especially after higher intakes.

Over time, the body adjusts to the amount of caffeine consumed and withdrawal symptoms may be experienced if intake is rapidly reduced. These include headaches, irritability and fatigue. Gradually reducing caffeine intake is likely to reduce the impact of these effects.

## In a nutshell

- People sensitive to caffeine should minimise consumption of tea, coffee and other caffeinated beverages, or choose a non-caffeinated alternative eg, water, milk, rooibos tea.
- Pregnant and breastfeeding women should limit or consider giving up caffeine containing beverages. Energy drinks are not recommended during pregnancy or breastfeeding due to the high caffeine content.
- Children may be more sensitive to the negative effects of caffeine. Water and reduced fat milk are the recommended drinks for children.
- The long term negative effects of caffeine are unknown. Therefore, caffeine intake should be monitored and intake stopped if there are any unpleasant side effects.
- Check labels for caffeine content before consumption, especially if usual consumption of caffeine is low.
- When reducing caffeine intake, do so gradually to minimise withdrawal effects.

## Who is most sensitive to caffeine?

Some people are more sensitive to caffeine and may need to restrict or eliminate their caffeine intake. Pregnant women should limit caffeine to 300mg per day (eg, which is roughly equivalent to four plunger coffees or six cups of tea) as caffeine readily crosses the placenta to the unborn baby. Research links high intakes with lower birth weight babies and other negative effects. During breastfeeding caffeine is transferred into breast milk, which can lead to irritability and disturbed sleep patterns for the baby.

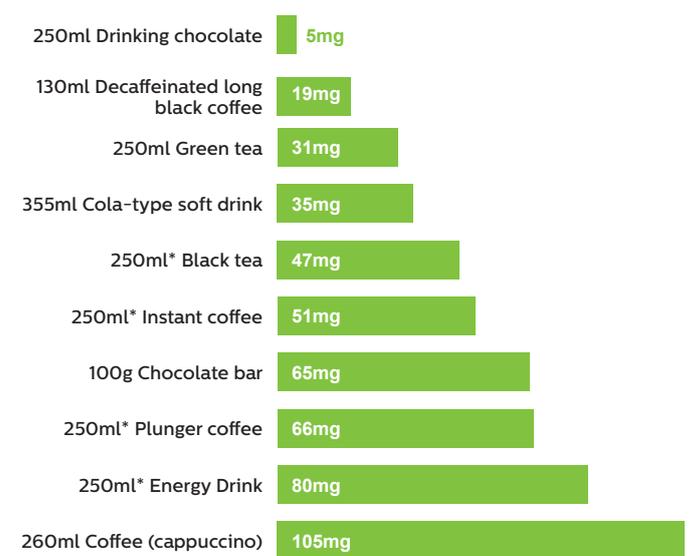
Children may be more sensitive to the negative effects of caffeine. Energy drinks are not recommended for children because they contain large amounts of caffeine and added sugar.

## How do we know what food and beverages contain caffeine?

Foods containing naturally-occurring caffeine are not required to declare the amount of caffeine on packaging. Beverages and foods containing added caffeine must list caffeine as an ingredient and the amount present. Products containing guarana are required to display a statement on the packaging that the product contains caffeine. In addition, energy drinks must also state that the product is not recommended for children, pregnant or breastfeeding women, and individuals sensitive to caffeine.

Many energy drinks contain considerably larger amounts of caffeine compared to other beverages (see chart). Labels should be checked for caffeine content before consumption.

## How much caffeine in a standard serving?



\*The caffeine content of coffee and tea made at home and at cafés are rough equivalents and may vary from the stated values.

Sources: Adapted from the Food and Nutrition Guidelines for pregnant and breastfeeding women (2008) and The Concise New Zealand Food Composition Tables, 11th Edition (2014)

### References

Ministry of Health. (2012). Food & Nutrition Guidelines for healthy children and young people (aged 2-18years). Ministry of Health: Wellington.

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Thomson B, & Schiess S. (2010). Risk Profile: Caffeine in energy drinks and energy shots. Environmental Science & Research Limited report prepared for New Zealand Food Safety Authority.

[www.foodstandards.govt.nz](http://www.foodstandards.govt.nz)

