



Which? Shorts: high-street coffee caffeine lottery

Hello and welcome to the Which? Shorts podcast, I'm Rob Lilley.

Now, first question... when are you listening to today's episode? If it's early in the morning, perhaps you're doing so while sipping a coffee, maybe on your way to work.

Well, if you picked up that coffee from a high street chain, you might want to listen up.

Which? research has found that caffeine levels in high street coffees vary significantly, with some high street coffees containing nearly five times as much caffeine as others.

You can read more about it in the link in our bio, but firstly to read us this article originally written by Shefalee Loth, I'll hand you over to Angus Farquhar.

If you regularly enjoy high street coffees, you could be getting much more – or less – than you bargain for. Our research reveals huge differences in the caffeine content of popular drinks. One leading cappuccino contains more than four and half times as much as a comparable rival.

Costa's 362ml cappuccino has a massive 325mg of caffeine – the same as four cups of builder's tea – while Starbucks' 350ml equivalent contains just 66mg. That's less than the 75mg you'd find in a single typical tea bag. And while Caffè Nero's version offers a relatively mild 115mg of caffeine, the comparable offerings from Greggs and Pret have around 200mg. It's not just frothy coffees. A single espresso at Pret contains 180mg – six times as much as at Starbucks. Filter coffees follow the same pattern, with Gregg's having more than twice the caffeine of Starbucks (225mg vs 102mg). Pret's filter option is even stronger at 271mg. Most coffees in chains have at least two shots of espresso (and some larger ones, three shots) so your caffeine intake can quickly add up, especially if you unwittingly choose a shop at the stronger end of the spectrum. They differ so wildly it's hard to know how much you're consuming.

For example, the medium Costa cappuccino contains three shots of espresso and their large one contains four shots. A small Costa flat white also contains three espresso shots. A flat white is an espresso with steamed milk, similar to a latte but with less milk. The milk vs coffee proportions are closer to a cappuccino but without the foam layer. An Americano is an espresso diluted with hot water so the caffeine content will match that of an espresso.

Several factors affect the caffeine content of coffee. First and most obvious is how much ground coffee goes into a cup – the more coffee used the higher the caffeine content will be. Next is the type of bean. There are two types of coffee – Arabica and Robusta. Arabica beans contain around half the caffeine of Robusta beans. Some coffee shops use solely Arabica beans while others use an Arabica and Robusta blend. Blends with Robusta have more caffeine. The third factor is the level of roast. Giles Hilton, freelance coffee and tea specialist and previously product director and buyer at Whittard of Chelsea,

says: 'Light and medium roasted beans contain more caffeine than higher roasts as the caffeine burns away as the roast level increases.' Another factor is the region the beans originate from. Giles adds: 'Just like wine, different regions produce different characters of coffee because of climate, altitude and soil. Coffee from South and Central America tastes different to Indonesian coffee which is different to Kenyan coffee.' Colin Smith, managing director of Smiths of London, artisan coffee roasters, says: 'Steeping time, size and quality of grind, and water temperature also affect the caffeine level in the cup. For example, a finer grind will result in a higher caffeine content.'

Each coffee shop has its own recipe and individual blend of coffee. This might be a mix of Arabica with a little Robusta or a 100% Arabica blend of beans from different countries and different levels of roast. Giles says: 'Robusta is cheaper to produce – it's a wild bush and doesn't require as much attention as Arabica. Robusta has a simpler, plainer flavour that can sometimes be brittle. 'It used to be that a classic Italian espresso would be 25% Robusta but our tastes have become more refined and people expect the smoother, sweeter, nutty and chocolate-type flavours of Arabica beans.'

But how much caffeine is safe to consume?

Caffeine is a natural stimulant that affects your brain and nervous system. It makes you more alert, increases attention and has been shown to increase performance in short-term high-intensity and endurance exercise. Most people can safely consume 300-400mg of caffeine a day. But more than 600mg has been linked to insomnia, nervousness, irritability, increased blood pressure and upset stomachs. Pregnant women should have no more than 200mg as higher intakes in pregnancy have been linked to increased risk of miscarriage and low-birth-weight babies.

Caffeine aside, there is emerging evidence that coffee has some health benefits. Recent studies have shown coffee drinkers have greater gut microbiome diversity as the polyphenols in coffee help fuel good gut bacteria. Other studies have shown people who drink coffee have a lower risk of stroke and liver disease. There's a sweet spot between the negative effects of drinking too much caffeine and the positive effects of drinking coffee. But our research shows it's not easy to know how much caffeine you consume. Plus, it's also in tea, cola, chocolate and energy drinks. Some cold and flu medicines contain it too.

A mug of tea contains around 75mg of caffeine, a 250ml can of energy drink has 80mg and a can of cola has 30mg. A mug of instant coffee has about 100mg. A single (45g) bar of milk chocolate has about 9mg of caffeine; the same size bar in dark chocolate has around 20mg. The final consideration to watch out for is the sugar content of your coffees, especially flavoured ones. These can be more like dessert and contain up to 45g sugar, equivalent to 11 teaspoons, way over your recommended daily amount.

Thank you so much to Angus, and thank you to Shefalee Loth too, the author of that piece originally written for the February issue of Which? magazine.

Remember you can find more articles you'll find useful every day on everything from money and technology to home and garden advice by signing up to one of our many free email newsletters at which.co.uk/newsletters.

We'll be back next week for another episode of Which? Shorts. Thanks for listening. Which? Shorts was produced by me, Rob Lilley, while the Exec Producer was Angus Farquhar.