Caffeine in Tea vs Coffee

From the teas.co.uk wiki

> **Caffeine in tea vs coffee, in summary:** Per cup, coffee has roughly double the caffeine of black tea; the "tea is higher" line is a dry weight myth.

"Does tea or coffee have more caffeine?" sounds like it should have a single number for an answer. It does not, and the popular shortcuts ("tea has more caffeine than coffee in the dry leaf", "coffee always wins") are both half truths. Here is the useful version of the answer.

Last reviewed by the teas.co.uk team in January 2026.

The headline answer

Per normal serving as you actually drink them, a cup of coffee almost always delivers more caffeine than a cup of tea, typically roughly twice as much for a standard black tea, more for a strong filter or espresso based coffee. The famous "tea has more caffeine than coffee" line refers to the dry material by weight before brewing, which is true but irrelevant in the cup, because you use far less tea per cup and brew it more gently. What lands in the mug is what matters, and in the mug coffee is the stronger stimulant for most people, which is why the dry leaf factoid, although technically true, is the single most misleading thing said about tea and coffee.

Why the dry weight myth misleads

Gram for gram, dry tea leaf can contain more caffeine than dry coffee beans, which is the basis of a popular pub fact. But you brew only a couple of grams of tea in a large cup of water for a few minutes, while a coffee uses far more ground coffee and a more aggressive extraction. The serving, not the raw ingredient, is what reaches you, so the dry weight comparison, while technically accurate, predicts the opposite of the real experience and is best retired.

Drink (typical serving)	Rough caffeine	Notes
Green tea	Low	Gentle; varies with brew
Black tea	Low to moderate	Stronger brewed longer
Strong builder black	Moderate	Long steep, lots of leaf
Instant coffee	Moderate	Less than filter
Filter / espresso based coffee	High	The strongest common cup

The ranges, and why they are ranges

Any plain source gives ranges, not fixed figures, because the variables are large. For tea: how much leaf, how long the steep, how hot the water, the type and the leaf grade, the principle the tea vs coffee caffeine overview and the herbal caffeine page set out. For coffee: bean, roast, grind, method and serving size. A weak cup of either can be lower than a strong cup of the other, but across normal habits the central tendency is clear: coffee higher, tea lower, herbal infusions none.

The L theanine difference

The more interesting distinction is not the amount but the company it keeps. Tea also contains L theanine, an amino acid that moderates the way caffeine is experienced, which is why many people describe tea's lift as gentler and more even and coffee's as sharper and faster. The total caffeine may be lower in tea, but the smoother delivery is a real, frequently reported difference and a large part of why people who find coffee jittery often get on better with tea. The flavour chemistry side of this is covered on the shade grown tea page, where L theanine is highest.

Decaf and caffeine free, kept distinct

Two terms people merge that this comparison must separate: decaffeinated tea or coffee still contains a small residual amount, while a herbal or fruit infusion never had any, the distinction set out on the decaf vs caffeine free page. If the goal is “much less”, decaf tea or coffee works; if the goal is “none”, only a proper tisane such as rooibos or peppermint qualifies.

Which to choose for what

The practical guidance falls out of the above. For a strong, fast lift, coffee delivers more caffeine per cup. For a gentler, steadier lift with less jitter, tea's lower caffeine plus L theanine suits many people better, especially across a working day of several cups. For the evening, a decaf of either or a caffeine free infusion is the sensible route, and the choice is really about how you want to feel rather than which drink is “stronger” in the abstract. Nothing here is medical advice; sensitivity varies and the tea and your health page sets the measured tone.

How brewing swings the tea number

Tea's caffeine is unusually movable, which is why ranges are wide. More leaf, hotter water and a longer steep all pull out more, so a strong four to five minute builder's mug sits far above a quick, gentle green. That is useful control: one packet will give a brisk morning cup or a softer afternoon one depending only on how you brew it, the lever the cold brew page exploits in the opposite direction by extracting little caffeine in cold water.

Coffee is less adjustable in the cup

Coffee gives you less day to day control: method and bean largely fix the dose, and an espresso or filter lands high almost regardless of how you sip it. That relative predictability is part of why heavy all day drinkers often find tea easier to pace, taking several lighter cups across a day rather than a couple of strong

hits, a pattern the tea and your health page treats as sensible everyday moderation rather than a health claim.

Sensitivity, timing and the evening

Individual sensitivity varies enormously, so the practical advice is behavioural, not numerical: if caffeine affects your sleep, the lower, smoother tea dose earlier in the day, then a decaf or caffeine free cup in the evening, is the reliable routine. Switching the later cups rather than cutting tea entirely keeps the habit while removing most of the stimulant, which is the practical resolution of the whole tea versus coffee question for most people.

Why the comparison matters for switching

People most often ask this when trying to move from coffee to tea, and the realistic framing helps: expect less caffeine per cup and a gentler, more even lift, so a single tea rarely replaces a strong coffee one for one on stimulant punch, but several across the day often replace it well on feel. Treating tea as a different rhythm rather than a weaker coffee is the mindset that makes the switch stick, and a brisk Assam or breakfast blend is the closest bridge from a coffee habit.

Common questions

Does tea or coffee have more caffeine? Per normal cup, coffee, usually about double a standard black tea, more for filter or espresso.

But is not tea higher in caffeine? Only by dry weight before brewing, which does not reflect the cup. In the cup, coffee is higher.

Why does tea feel gentler? Tea also has L theanine, which smooths the caffeine delivery, giving a more even lift than coffee.

Is any tea caffeine free? Real tea always has some; only herbal and fruit infusions (or, for "much less", decaf) are effectively without.

If you want the gentler, even lift, it is worth browsing our black teas and green teas, a naturally caffeine free rooibos for the evening, or a decaf if you want the habit with little of the stimulant.

Reference noted

- EFSA Scientific Opinion on the Safety of Caffeine (2015)

FROM THE CURATOR

teas · A reliable cup you know beats a drawer of untried boxes. Rotate between two or three you look forward to.

Tea-vs-coffee follow-on

- The history of tea: a quick frame
- Loose leaf vs teabag: a clear comparison
- Tea tasting for beginners: a gentle primer
- Tea and caffeine: typical numbers
- Herbal tea: ingredient by ingredient
- Green tea: a careful look
- Tea storage: a few solid habits
- Tea ethics & sustainability: where things stand

The everyday teas in the same family: English Breakfast, Earl Grey, green tea, loose leaf tea, Darjeeling, oolong, and herbal tea. Browse the wider tea range; UK shipping is free above £35, and the range starts at single bags.

More from the tea wiki

- Green tea
- Black tea
- Oolong tea
- White tea
- Herbal tea
- Caffeine in tea
- How to make tea properly
- Loose leaf vs teabag

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