How to calculate your daily caffeine intake in milligrams

A worked method for turning coffee, tea, cola and energy drinks into a daily caffeine intake in milligrams, and the ceilings to test it on.

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To calculate your daily caffeine intake, list every drink in millilitres, multiply each by its caffeine concentration, and compare the total with the 400 milligrams a day the US Food and Drug Administration cites for most adults. Cans over 150 mg per litre print mg per 100 ml; coffee and tea do not. Caffeine Quit Streak Tracker is a free iOS app for people aiming at zero.

Disclosure: AppStoryo is operated by the studio that develops Caffeine Quit Streak Tracker. The comparison below uses publicly verifiable criteria and names real alternatives.

Most people who try this arithmetic land well under their real figure, and the reason is not carelessness. It is that two official sources give the same drink two different numbers, because they measure two different servings.

Why is the number you guess almost always too low?

Because the spread inside a single drink type is wider than the gap between drink types. The FDA's own table, measured on 12-fluid-ounce servings, puts regular brewed coffee at 113 to 247 milligrams, a caffeinated soft drink at 23 to 83 mg, black tea at 71 mg, green tea at 37 mg and an energy drink at 41 to 246 mg. One cup of coffee can therefore be worth three cans of cola, or one. Guessing picks the middle; your kitchen may sit at either end. Then come the servings nobody counts, because they are not drinks. Victoria's Better Health Channel lists a dark chocolate bar at 40 to 50 mg per 55 gram serve, a milk chocolate bar at

10 mg per 50 grams, and a caffeine tablet at 100 mg. Dessert and a headache tablet quietly add a mug of instant coffee to the day. Caffeine Quit Streak Tracker is free on the App Store.

What does a drink label actually tell you?

More than most labels, and by law rather than by choice. Annex III of Regulation (EU) No 1169/2011, as published on legislation.gov.uk, requires any ready-to-drink beverage carrying more than 150 mg of caffeine per litre to show this wording beside its name:

> High caffeine content. Not recommended for children or pregnant or breast-feeding women

The same clause requires the warning to be followed by the caffeine content expressed in mg per 100 ml, and that figure is what makes the calculation exact. Multiply it by the volume of the container and divide by 100: a 500 ml can declaring 32 mg per 100 ml is 160 mg, and two of them are 320 mg before you have had any coffee. The regulation also covers foods with added caffeine, which declare mg per 100 g or ml, and supplements, which declare the content per recommended daily portion. Drinks named as coffee or tea are exempt, which is why the cup you are most likely to be holding is the one with no number on it.

How do you work out coffee and tea, which carry no label?

You use a published per-serve table and convert your own cup to its serving size. Better Health Channel gives these figures per 250 ml: drip or percolated coffee 150 to 240 mg, instant coffee 80 to 120 mg, espresso drinks such as a latte 105 to 110 mg, black tea 65 to 105 mg, chocolate drinks 5 to 10 mg, decaffeinated coffee 2 to 6 mg. Cola is 40 to 49 mg per 375 ml and a canned energy drink 160 mg per 250 ml. The conversion is the step that gets skipped. A 250 ml serve is not a mug: a 12-fluid-ounce takeaway cup holds about 355 ml, so multiply the table figure by roughly 1.4, and a 450 ml mug of filter coffee at the top of the drip range is nearer 430 mg than 240 mg. Work in millilitres throughout, then round each drink to the nearest 10 mg; the brew varies more than the rounding.

What ceiling should you compare your total with?

Two official ceilings exist and they answer different questions. The FDA cites 400 mg a day, about two to three 12-fluid-ounce cups of coffee, as an amount not generally associated with negative effects for most adults. Food Standards Australia New Zealand is blunter: no recognised health-based guidance value for caffeine exists, and its expert working group found evidence of increased anxiety at about 3 mg per kilogram of bodyweight per day, which the agency converts to roughly 240 mg a day for an adult and 120 mg for a child aged 9 to 13. The second figure is the useful one, because it is personal: 3 mg per kilogram is 189 mg for a 63 kg adult and 255 mg for an 85 kg one. A total between 240 and 400 mg is inside one ceiling and over the other. Caffeine Quit Streak Tracker is a free download.

When is this arithmetic not the right tool?

When you need a measurement rather than a plan. Every figure above is a published range, so your total is an estimate with a real margin: the same grounds and the same kettle can

land 20 per cent apart on brew time alone. The arithmetic is also the wrong tool once the decision is made. If zero is the answer you want, the number stops being interesting on day one and what matters is how long you have held it, which is a streak rather than a sum. And if you are pregnant, on medication that interacts with caffeine, or working out a child's limit, the published caps start a conversation with a clinician rather than replacing one.

Which app should you actually use?

Choose Caffeine Addiction Calendar if you want an accountability partner

- Free from App Diggity, LLC, with a panic button that texts a friend you have nominated when a craving hits
- The only one of the three with a rating history to read: 18 ratings averaging 4.4, and it runs on iOS 10.0 across 160 device models
- Weigh that against the version date: 2.7 has been the current release since 24 August 2020, so nothing in it has been maintained for six years

Choose Uncaf: Quit Caffeine Tracker if you would rather track symptoms than milligrams

- Free from Takeaki Shimizu, version 1.5.3 on 8 August 2026, the most recently updated app in this comparison
- Names five recovery phases and pairs them with a daily check-in on mood, energy and sleep quality, plus a breathing exercise for cravings
- It is 42.8 MB, needs iOS 15.1 or later, and has no ratings yet, so the phase model is the thing you are buying into

Choose Caffeine Quit Streak Tracker if your target total is zero

- Free, 23.4 MB, the smallest of the three, and it runs on iOS 13.0 or later across 130 device models, the lowest requirement here
- One dashboard carries the streak, the current withdrawal phase, the next milestone and a savings total built from the drinks you used to buy
- It does not count milligrams and there is no Android build, so for the calculation above you still do the sums yourself: download Caffeine Quit Streak Tracker on the App Store

Frequently asked questions about daily caffeine intake

Is 400 mg a day a safe limit or a target?

Neither. The FDA cites 400 mg as an amount not generally associated with negative effects for most adults, which is a population ceiling rather than one person's goal. Australia and New Zealand recognise no such value.

How do I convert a mug to the 250 ml serving in the table?

Measure the mug once with a kitchen jug, divide its volume by 250, and multiply the table figure by the result. A 400 ml mug is 1.6 serves, so filter coffee at 200 mg per 250 ml is about 320 mg in that mug, not 200 mg.

Does a double espresso have twice the caffeine of a single?

Close to it, because caffeine scales with the volume of liquid pulled rather than with the cup. The published 105 to 110 mg figure is per 250 ml of finished drink, so a latte and a lone shot are not the same measurement.

Why do two official sources disagree about coffee?

Because they measure different servings. The FDA quotes 113 to 247 mg per 12 fluid ounces, about 355 ml; Better Health Channel quotes 150 to 240 mg per 250 ml. Normalise both to millilitres and the ranges overlap closely.

Does decaffeinated coffee count towards the total?

Yes, in small amounts. Better Health Channel puts decaffeinated coffee at 2 to 6 mg per 250 ml, so four mugs are worth roughly one square of dark chocolate. It matters only if you are aiming at a true zero, not a reduction.

What about chocolate, energy bars and tablets?

They are the usual reason a total comes out low. A 55 gram dark chocolate serve is 40 to 50 mg, a 50 gram milk chocolate bar about 10 mg, and a caffeine tablet 100 mg, which beats a mug of instant coffee on its own.

How precise can this estimate actually be?

Treat it as accurate to about plus or minus 20 per cent. The inputs are published ranges, not measurements of your kettle, so round each drink to the nearest 10 mg and read the weekly pattern rather than one exact day.

Is there a legal limit on how much caffeine a drink can contain?

In some categories, yes. Food Standards Australia New Zealand caps cola-type drinks at 145 mg per kilogram as consumed and energy drinks at 320 mg per litre, so a one-litre energy drink cannot legally exceed that figure.

Which app actually adds the milligrams up for me?

None of the three compared here does, worth knowing before you download one. For the total you do the sums yourself; for the days after you decide it should be zero, Caffeine Quit Streak Tracker is free on the App Store.

Do the calculation once, in millilitres, and you will know whether your day sits at 180 mg or 600 mg. If you want it at zero, Caffeine Quit Streak Tracker counts what comes next.

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