5 essential steps to perfect coffee

DRINK BETTER COFFEE

CoffeeGator

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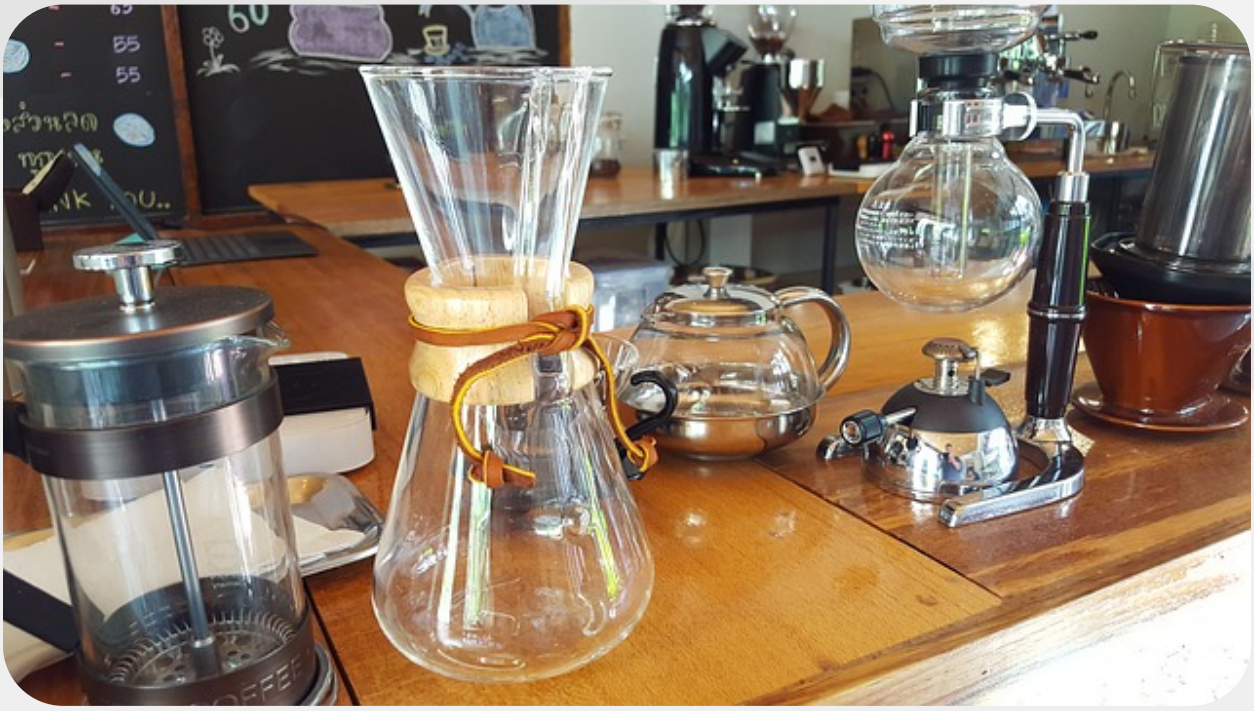
INTRODUCTION

Despite what the big chains want you to believe, making coffee isn't rocket science. With the right ingredients and tools, a dash of effort and a pinch of trial and error, you can make coffee to compete with what any top barista can produce. You can make your perfect cup.

We've sampled coffee in all four corners of the globe. We've tried the wares of the most passionate, perfectionist, artisan roasters out there. We've learned the secrets of world-class baristas and had a blast along the way. We did all this, just so you don't have to (but don't let us stop you - really).

There's just no need to settle for the bitter, burnt "McCoffee" that multinationals churn out by the gallon. We challenge you to declare war on capsules, granules, gimmicks and gizmos. Follow these simple steps and you'll be making steaming-hot coffee so downright delicious, it'll make your neighbours jealous.

So, as long as you're prepared for your home to become the go-to coffee morning venue for your friends, and you're sitting comfortably, let's begin.



STEP ONE: BUYING MAGIC BEANS

"I love coffee, but there's so much choice, I don't know where to start". We hear this all the time. The important thing to remember is not to panic like a silly old sausage. It doesn't have to be hard.

Let's start by telling you something you already know: to get the best out, you need to put the best in. It stands to reason you need to buy good raw materials; in this case beans. But don't worry, that doesn't have to mean spending a fortune either. If you shop smart, quality doesn't have to cost an arm and a leg.

WHERE TO BUY

Sure, you can find perfectly adequate beans in the supermarket, and there's no shame in that. It might be easy, and maybe you have a brand (you think) is your favourite. But are you happy with just 'adequate'? Bear in mind, there are plenty of good reasons to steer clear of supermarket coffee.

Contrary to what the big boys might tell you, coffee goes off. It usually has a 'best before date' on it rather than a 'use by' because it won't kill you if you drink it a couple of years after it was roasted and bagged. Hopefully you'd agree that 'not killing you' is really the very least anyone should expect from their coffee.

Quality, independent roasters will be able to give you a roasting date. If you get beans within a couple of weeks of that, you'll really start to notice the difference.

There are an estimated 50,000 coffee retailers in the USA, millions worldwide. Many of these folks are roasters too. How do these boutique operations compete with the big boys? Put simply: they put everything into making a better quality product. The stats show that we're starting to realise that: in 2013, The National Coffee Association (NCA) of the USA, reported an annual 3% rise in gourmet coffee being drunk. At the same time there was a 4% drop in non-gourmet coffee consumption.

So if you want the best, now you know where to look. Track down a local roaster and be nice to them. They'll give you a personal service, work out what beans, blend and roast suits your palate. They'll be able to tell you where the beans came from, which means you'll consistently get the flavour you love while being confident they were ethically produced. In short, finding a quality roaster will dramatically improve your coffee and in-turn, your life.

WHAT TO BUY

There are two types of bean that are used to make coffee commercially: Arabica and Robusta.

James Hoffman, a world barista champion and co-founder of Square Mile Coffee Roasters, London has this to say about our two friends:

"The more popular one, the better tasting one, is called arabica. The other one is known as robusta. That's easier to grow, it grows at lower altitudes and generally doesn't taste as good. It's a bit more bitter, it's got a lot more caffeine. And a lot of that ends up in instant coffee. Whereas if you buy good coffee from a good coffee shop, that's more likely to be 100% Arabica"

So, as the name suggests, robusta is one tough little cookie. As well as growing at low altitude, it's less susceptible to pests and disease, needs less herbicide and pesticide and is generally lower maintenance than arabica. That's why the big boys use it to make lorry-loads of instant "coffee".

But don't blame robusta for that, the best beans certainly have their uses. They're probably responsible for at least some of the full-bodied taste and crema (yellow foam) on your last decent espresso. That's why you'll usually find 10-15% robusta blended into arabica in traditional Italian recipes.

OUT OF THE DARKNESS AND INTO THE LIGHT

If you buy coffee from a chain, it's likely to be a darker roast, which suits them because it makes achieving consistency a lot easier. So a chain with hundreds of shops can buy beans from a variety of sources, at the right price-point and make all their coffee taste generic. That's good for them, but surprise, surprise: it ain't so good for you.

Darker roasts are likely to taste more bitter, even burnt. That's because they're roasted for longer which depletes the subtle flavours. Lighter roasts preserve much more of the natural, subtle flavours. So if you buy a quality, light roast, you can end up with something that tastes zesty, maybe even slightly fruity.

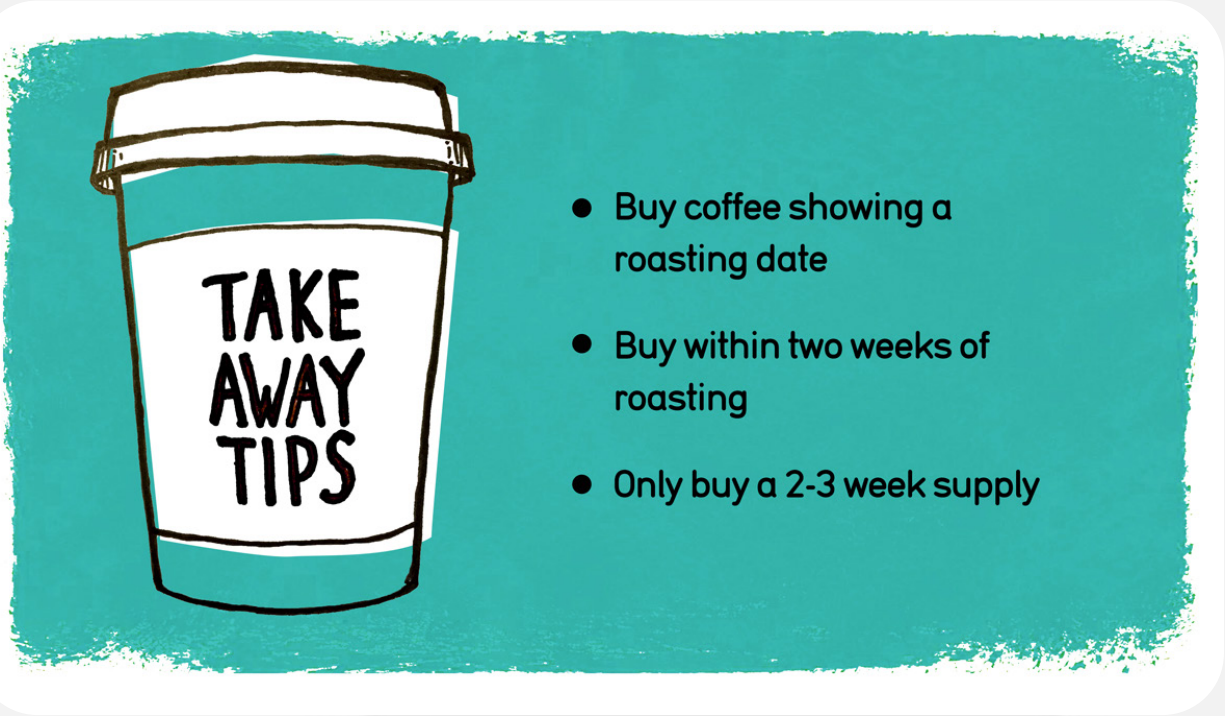
Lighter roasts are also more durable so they retain their quality for longer. Darker roasted beans become more permeable to moisture and oxygen (both mortal enemies of the coffee bean).

All this is complicated, right? Well, there's a fair bit to consider, but we're talking about making truly exceptional coffee here and you don't have to do it alone. This is the value of a good local roaster. They can tell you when and where the coffee was grown, when it was harvested (just remember: fresh is best) and make recommendations based on what floats your particular boat. Ask questions: a quality roaster will love the chance to bend your ear.

Having said all that, there are some secrets they'll want to keep to themselves. We know one such roaster who literally keeps one of his blend recipes under lock and key. His Italian great-grandmother's, handed-down, notebook containing the family formula rests in a locked vault. It will stay there until it's passed on to the next generation.

Finally, don't buy a truckload of beans until you know what you like. That way you won't be forcing it on your unfortunate friends until we get that cold day in hell everyone's been talking about. Little and often is the winner here (for even more reasons we'll find out about later).

All you need to do is broaden your coffee horizons a little, to improve your daily brew a lot.



STEP TWO: PROTECTING YOUR INVESTMENT

So you've hunted out a friendly local roaster, chosen your coffee-match-made-in-heaven and got the goods safely home. Now you can crack on and grind it, right? Wrong.

Coffee beans are an incredible natural flavour container and each stage in the process of turning a bean into a drink unlocks something amazing. But all this goodness will quickly be wasted unless you do things right. Love your coffee, and your coffee will love you.

Raw, green coffee beans are about as tasty as a bag of lawn clippings. But roast them and their hidden talent is unleashed. You've heard of chemistry, right? Well, it's something called the Maillard Reaction that changes how a previously green bean looks, tastes and smells. Roasting breaks down starches into simple sugars which caramelise and turn brown. The heat weakens oils and acids, creating flavour and, at around 200 °C (392 °F) caffeol oil is produced. Caffeol is the secret ingredient that makes coffee smell like, well, coffee.

Of course the very beginning of the process of staling begins the moment coffee cherries are plucked from the tree. But the real race against time starts after roasting. Caffeol, in particular, deteriorates quickly, and who wants coffee that doesn't smell of anything? Our job is to slow the ageing process as best we can to preserve what we all love.

Unless you have absolutely no choice, store coffee as whole beans, rather than grinding before you're ready to use it. Grinding releases flavour and you want it in your cup, not in the greedy, greedy atmosphere. Once you grind the bean, it's a matter of minutes (not hours or days) before quality starts escaping. To be perfectly clear and in summary: grind it, then drink it.

THE FOUR ARCH ENEMIES OF COFFEE

Coffee, its flavour and aromas have four sworn enemies that are out to spoil your drinking enjoyment:

- Moisture
- Heat
- Light
- Oxygen

The trouble is, these tyrants are lurking everywhere, so you'll need to be on your toes to protect your precious cargo against them. Let's take a look at some storage do's and don'ts.

REFRIGERATE IT - JUST DON'T!

No matter what the packet might suggest, never store coffee in the refrigerator. It's just not a suitable environment for your delicate beans. It's a moisture and humidity fiesta in there. On top of that, the temperature is constantly changing as you open and close the door. Worse, unless completely sealed, your beans can take on the flavour of the food and drink it's sharing the space with. But hey, if you want your coffee to taste like last Tuesday's tuna salad, we won't stand in your way.

FREEZE IT - PROBABLY DON'T (IT'S YOUR FUNERAL IF IT GOES WRONG)

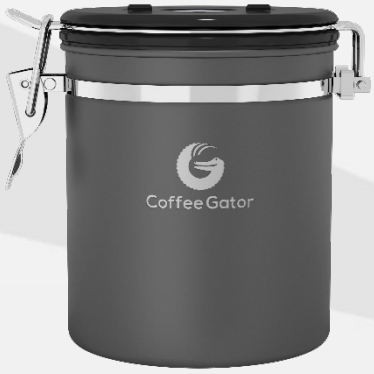
You can freeze beans but you need to get it right or you might as well be drinking instant (and nobody wants that). There are three golden rules if you decide to freeze your coffee:

1. Freeze ONCE
2. Use a freezer-safe container
3. Place in DEEP-FREEZE

Repeatedly freezing and defrosting coffee is a definite no-no. It allows moisture in and flavour out, as does freezing it in the packet it comes in. That packet is not designed to seal out the elements. You need to use an extremely cold deep freeze (ideally a chest freezer). The repeated opening and closing of a typical kitchen freezer door sends the temperature on a rollercoaster of peaks and troughs that are a haven for moisture and humidity: both sworn enemies of coffee. If you do choose to freeze coffee, just take out what you need, as you need it. If you follow those rules, and defrost it thoroughly before using it, you can be fairly sure of a decent cup.

CANISTER - PLEASE DO!

A decent canister will keep the four arch enemies out. But there's actually a fifth threat which the beans cause themselves: carbon dioxide (CO2). If CO2 is allowed to build up, it will significantly impair the flavour. That's why some coffee packs have a valve (which people often mistake for a vacuum seal) to let it escape. Once the sealed pack is open, you need to protect the beans in a similar way. Invest in a canister with a CO2 valve and leave that somewhere cool, dark and dry, like a kitchen cupboard.



We know what you're going to say, "of course you recommend storage canisters, you sell them!". Well, that's true. But we designed them to do the best job possible and hopefully now you understand how they really do keep your coffee fresher for longer.

STEP THREE: THE DAILY GRIND

If you take care at each step of the coffee-making process, you'll get your rewards. The grind is certainly something you need to pay attention to. Get it wrong and you'll be left with nothing more than 'what ifs'.

True, shelling out on a grinder is grind (pun intended) if you've always bought ground coffee in the past. But it will take your coffee game to the next level. If you're still in two minds, take in a good long nose-full of freshly ground beans next time you're in a coffee shop. Show us someone who wouldn't want their home filled with that aroma and we'll show you a liar.

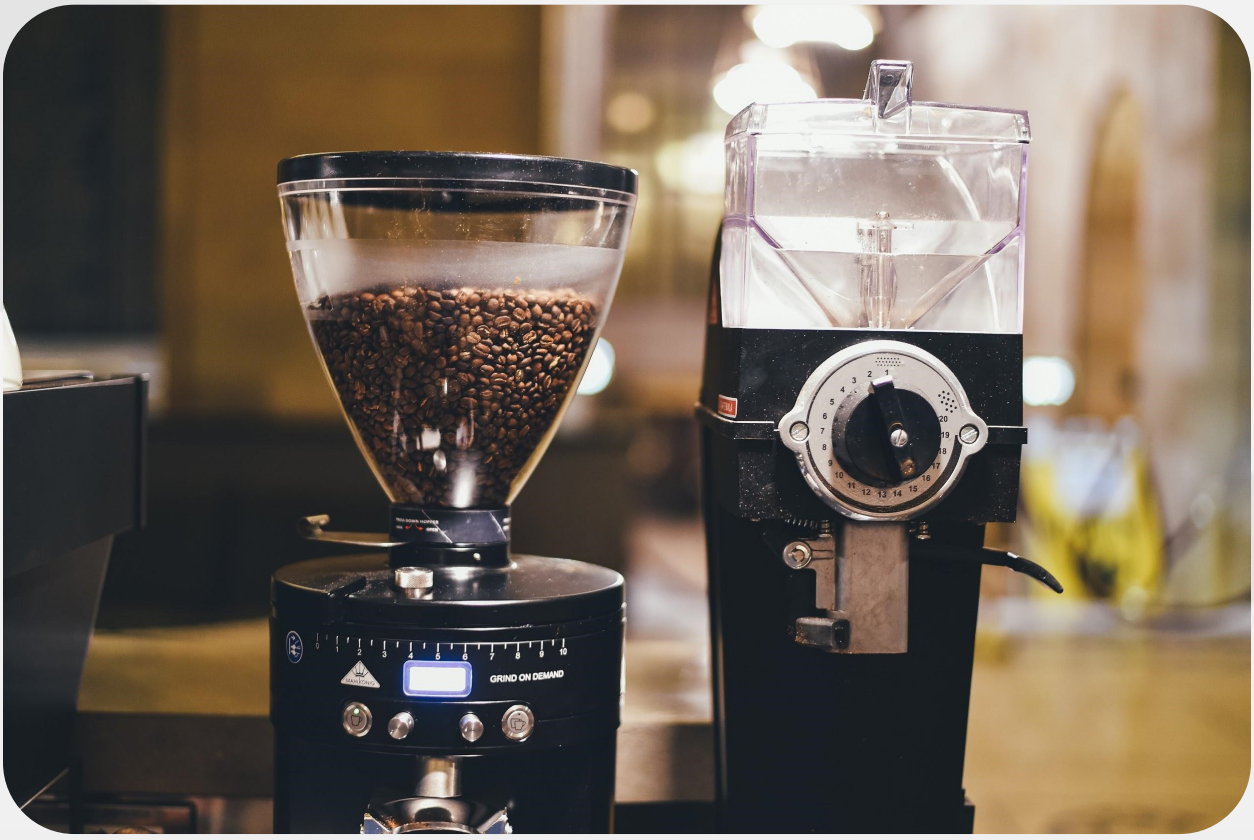
Grinding beans isn't just a case of smashing them to smithereens: there's an ideal grind grade for your brewing method of choice. For example, only a very fine grind does the trick for espresso, whereas French press brews for longer and requires something more coarse.

BLADES, BLURS AND BURRS

Whatever method you to go with, it's important to remember, all grinders are not created equally.

BLADED

Put simply, a bladed grinder is a false economy. Strictly speaking, they aren't even grinders: they use blades to slice, rather than grind. What you end up with is a mixture of dust and rubble as the blades tear through your precious beans, pulverising some bits, entirely missing others. It's the kind of inconsistent mix that's useless for any brewing method. People who know what they're tasting will tell you the tiny bits make a brew bitter and the bigger hunks sour. Neither is good.

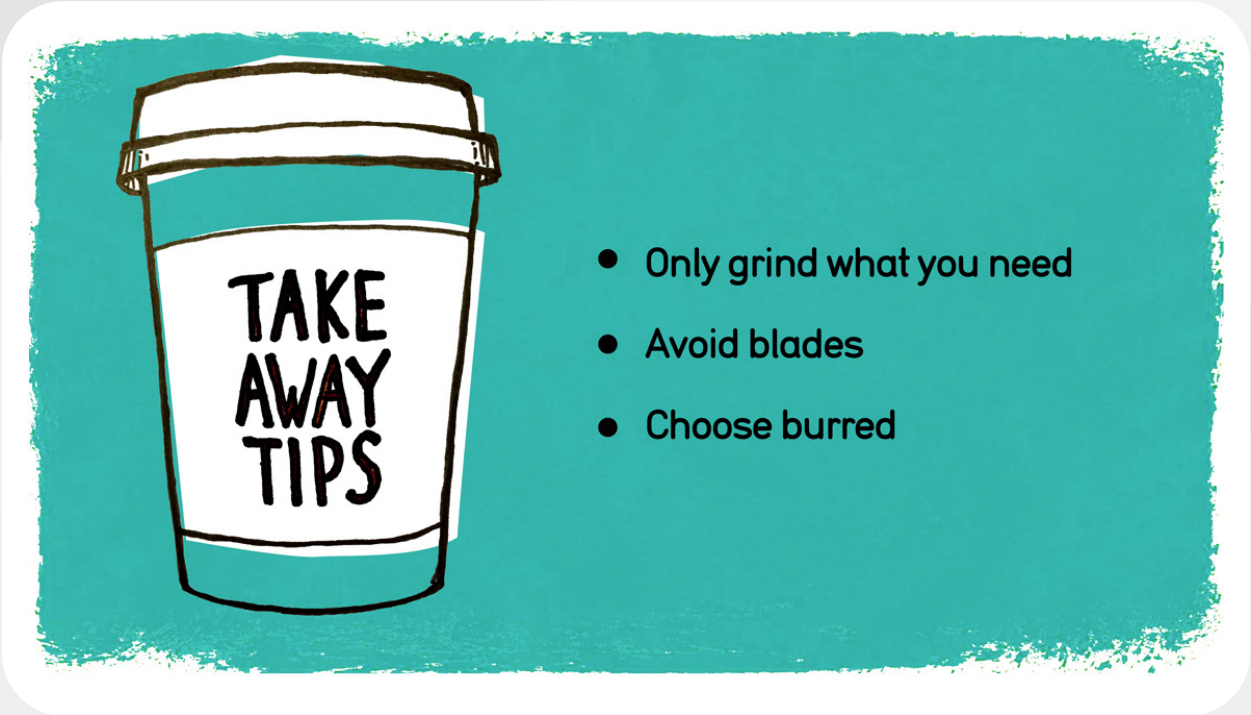


BURRED

You'll pay a little more for a burr grinder, but it's the only way to consistently get the grade you're after. Having the ability to adjust the grade allows you to consistently achieve the right grind for whatever brewing method you choose on any given day.

You can get electric and manual versions of burr grinders. But they both achieve results in the same basic way. Two discs (or burrs) are mounted face-to-face and the distance between them equates to the size of the grounds they'll produce. One ring is serrated, the other jagged.

'Flat' and 'conical' burr grinders are available. Only the most dedicated coffee snob will claim to detect any difference in the coffee they produce. If there is any flavour fluctuation, it's not something we've ever noticed. Flat and conical just refers the the angle the rings are mounted. Flat burr grinders can sometimes retain a little more of the grind than a conical version and people usually find them more user friendly if you need to make any adjustments to them. If pressed, we'd point you down the conical route. They're generally more reliable and durable, so your investment will probably see a decent return in the end.



STEP FOUR: PREPARE TO BREW

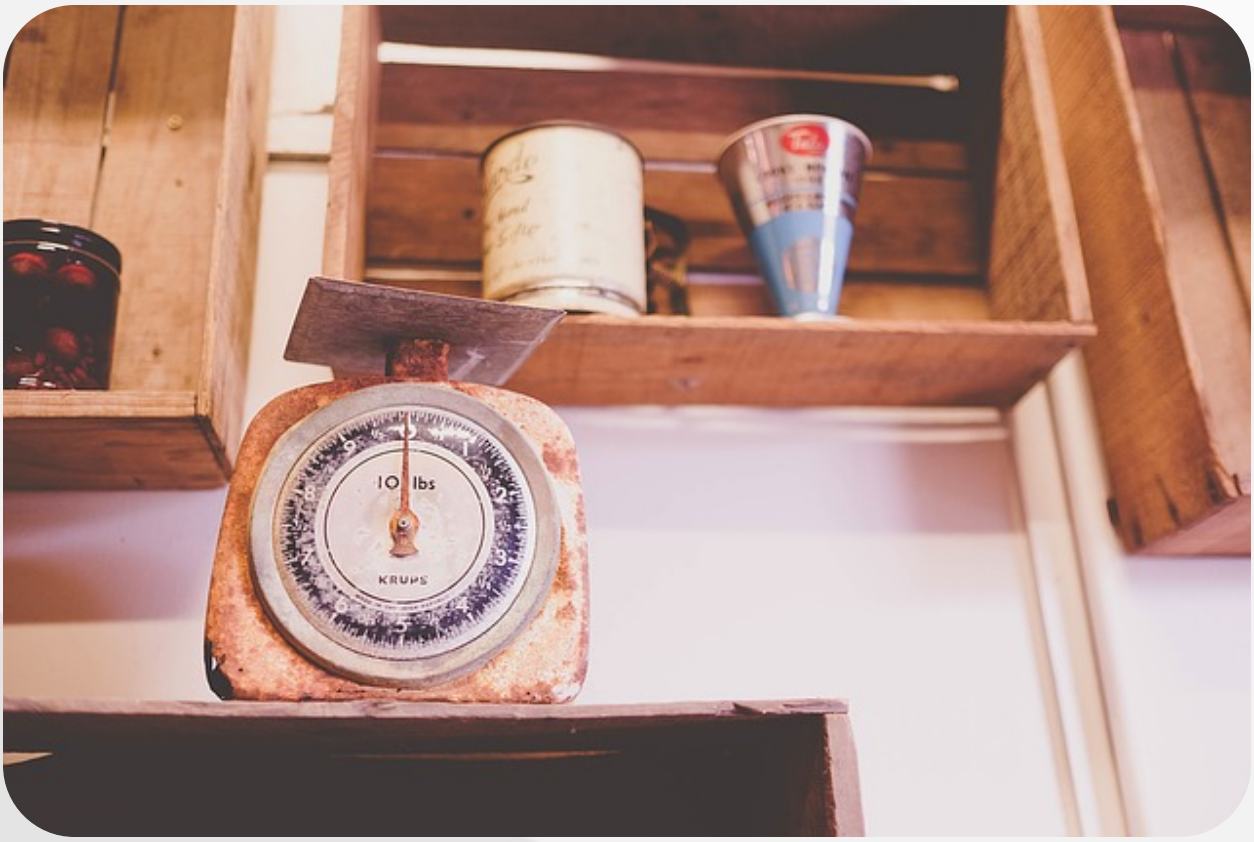
WEIGHTS AND MEASURES

There are charts and graphs and all sorts out there for calculating the ''correct'' ratio of coffee to water for brewing coffee. The truth is, it all comes down to taste, which as we all know, there is no accounting for. If you want to do things exactly by the book, then you're very welcome to do so. After all, this ratio has arguably the biggest impact on how your coffee tastes. But that's the point: if you get all the other details right, then you can experiment with the ratios and find what works best for you.

Our advice is to start off as follows and have a tinker:

- One cup = 2 tablespoons coffee / 10.6g to 177ml water
- Two cups = 4 tablespoons coffee / 21.2g to 354ml water
- Four cups = 8 tablespoons coffee / 42.4g to 708ml water

Bear in mind, not all coffee has the same density, and finely ground beans take up less space than coarse. So the only accurate way to measure is by weight rather than volume (tablespoons, cups etc).



WATER

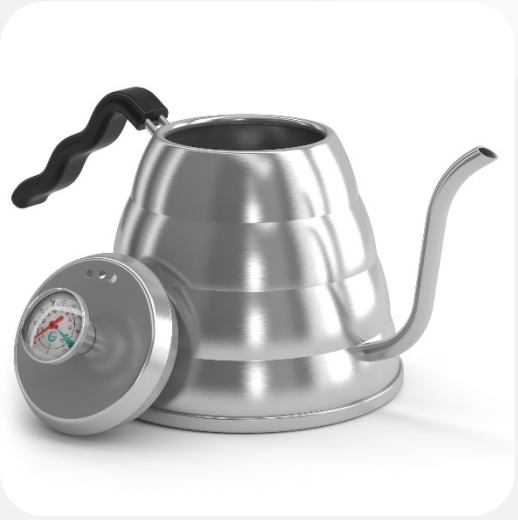
Start off with filtered, distilled or bottled water if possible. That might sound extravagant, but chloride is commonly found in tap water. That and other contaminants will not do you any favours. Before you accuse us of being pompous coffee snobs, try brewing a single cup using bottled water. Then try it with tap water. See? Told you we were right.

KETTLE

This is important: one surefire way to undo all your careful work is by scorching your beans with boiling water fresh out of a standard kitchen kettle. But hey, if you like a nice burnt, bitter flavour, then be our guest. On the flip-side, water too cold just won't draw the potential flavour from your grind.

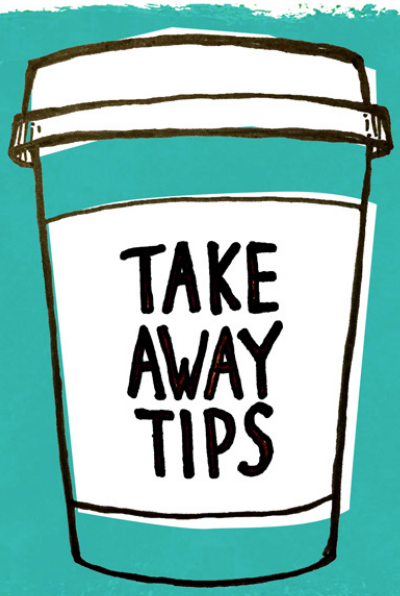
Don't just trust us, the National Coffee Association directive is water between 91°C (195°F) and 96°C (205°F). In truth, the closer to 96°C (205°F), the better.

You'll also need to have control over the water flow (particularly with pour-over brewing).



A standard kettle doesn't really cut the mustard for either of these jobs. Your best bet is to get your hands on something designed for the task at hand. Look out for a coffee kettle with a gooseneck spout and, ideally, a built-in thermometer. The narrow spout enable a comfortable angle for pouring and a slower, even pour. This is is particularly important for pour-over coffee. These kettles are relatively inexpensive and guaranteed to save tears over expensive, wrecked coffee.

The more water you heat, the longer it holds its temperature. So if you heat your equipment first, and a little more water than you actually need, you'll have longer to make your perfect brew.



- Use clean, filtered water at 96°C
- Ratio: 177ml water to 10.6g coffee

STEP FIVE: THE RIGHT BREW FOR YOU

There are a myriad of brewing methods to choose from. They range from the straightforward to the faintly ridiculous. But each has their pros and cons. Rather than give you a guide to every avenue out there, we're just going to focus on what we consider the best.

In our (not particularly) humble opinion, there are two home brewing methods that produce a tip-top-calibre cuppa coffee. If you want to experience complex layers of flavour and squeeze every ounce of pleasure out of quality beans, then the pour-over and French press methods are your friends. They represent your ticket to new levels of flavour, non-bitter, non-acidic coffee that will improve your life by a minimum of 20% (fictional, unverified, made-up, figures).

As with anything in life, you can cut corners. All we can do is show you how to make an impeccable cup. What you do with this information is entirely up to you. After all, you can lead a horse to coffee, and all that..

FRENCH PRESS (AKA CAFETIÈRE)

The French Press represents coffee-making for the masses. Despite its name, the familiar French Press was actually patented by an Italian in 1929 (there was a similar patent in France in 1852). Using these is as easy as falling off a log, plus they're cheap and readily available.

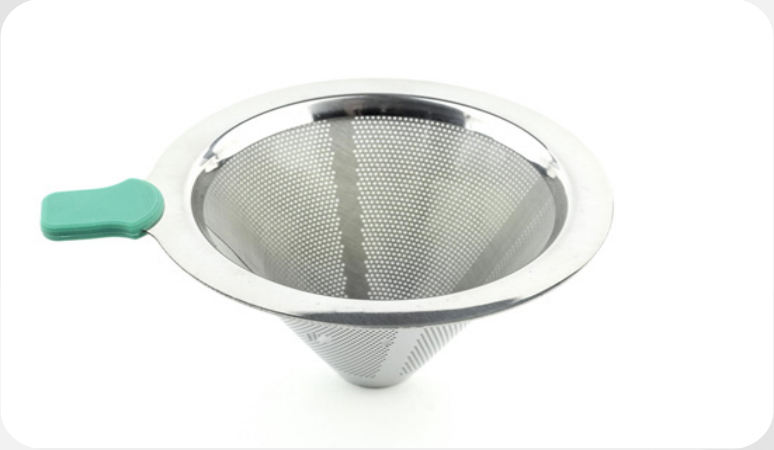
French press is an 'infusion' method, which means the coffee and water steep together with one another. Most brewing methods (including pour-over) rely on passing water through your coffee. At the most basic level, you chuck in coffee, fill with water, push plunger, pour. Here's how it's done properly:

1. Warm press and mugs with hot water then discard as needed.
2. Spoon required amount of fine/medium ground coffee into French press.
3. Heat measured water to as close to 96°C (205°F) as possible.

4. Steadily pour water into press getting all coffee wet (leaving plunger and lid off).
5. Stir, then steep for four minutes.
6. After four minutes, spoon-off any foam on the surface.
7. Steep for further 5 minutes.
8. Place lid on without pushing the plunger (it only stirs up silt at the bottom).
9. Pour coffee slowly through mesh into the cup stopping before pouring the silty dregs.
10. Enjoy a delicious, silt-free cup of coffee.

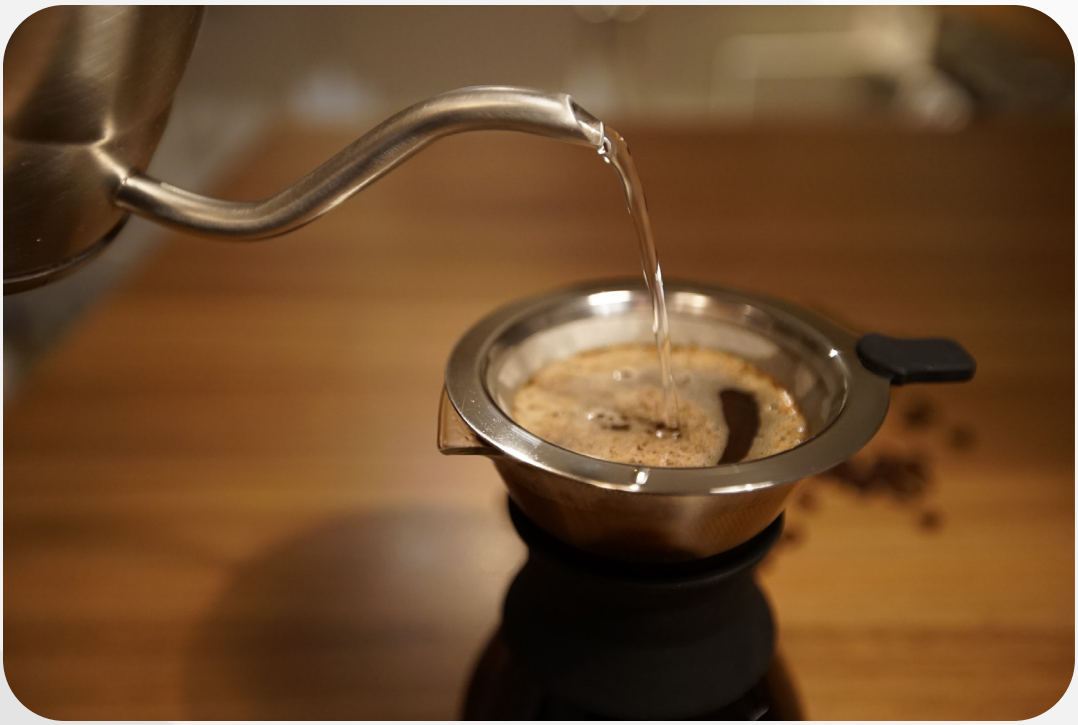
POUR-OVER

The term 'pour-over' refers to a number of brewing methods. But they all share the same basic principle of brewing by percolation. Percolation methods differ from infusion (like the French press, above) in that water is passed through coffee, drawing out the flavour along the way.



There are metal, cloth and paper filters available, and each pour-over coffee proponent has their personal filter of choice. Unlike paper and cloth, a metal filter retains some of the suspended pieces of coffee and oils. They're re-usable and easily cleaned, which is why we heartily recommend opting for a metal filter.

Pour-over takes a little more time to perfect than French press, because grind, time and the amount of coffee all play a big part. But this extra effort is well worth it once you taste the results. The fact that this method is still so popular, is testament to the results you can achieve. So embrace the ritual and you'll soon be tasting delicate, zesty flavours you might never have experienced before.



Only you know your taste, so don't be afraid to experiment. Adjusting the grind usually has the most significant shift in the flavour. Too bitter? Probably over-extracted. Use a coarser grind. Weak or sour? A finer grind will probably set things straight. Use the following as a guide, rather than a set of rules and have fun while you're doing it - this is not a test.

1. Pour hot water through the carafe (and filter if using a metal one) then discard as needed.
2. Spoon required amount of medium/coarse ground coffee into filter.
3. Heat measured water to as close to 96°C (205°F) as possible (returning to heat to maintain temperature).
4. Pour a little water evenly over the coffee, getting it evenly wet, from the centre outwards.
5. Leave for 30 seconds to allow carbon dioxide gasses to escape. The coffee will start to 'bloom' or dome.
6. Pour in short, even shifts, maintaining the bloom for 3 minutes.

CONCLUSION

So there we have it: your guide to buying, storing, grinding and brewing. There's a lot of information out there on what we've talked about, and an equal quantity of opinion too. We don't claim to be the leading authority on coffee, and you should be wary of anyone who does. But we know what we like and hopefully that's been a help to you.

There are many more ways of making a brew and you'll undoubtedly have your own preference. The fact is, making coffee is an art, not a science. There are some basic, common sense, do's and don'ts, but if you make a cup of coffee that you like, then don't let anyone tell you it's wrong.

So, all that remains is to wish you the very best of luck on your personal coffee adventure. Now get out there and forge your own coffee path!

THE BEGINNING