

Secrets to a Perfect Cup of Coffee

You can spend \$20 a pound for premium coffee, but unless it's fresh and you're using proper brewing techniques, it's a waste of money. Here's what you need to know to make the perfect cup. BY KEITH DRESSER

BUYING AND STORING TIPS

➔ **DO** buy loose beans in small quantities no more than a few days from the roasting date (ask before you buy); our testing has shown that roasted beans are ready for the compost pile after just 10 to 12 days (see "Flavor Countdown" at right). Buy from a local roaster or a store that sells a high volume, upping your chances of buying beans from a recently roasted batch.

➔ **DO** buy prebagged coffee in a heat-sealed, aluminized Mylar bag with a one-way degassing valve. This valve (sometimes no more than a bump) releases carbon dioxide to stop the bag from inflating while keeping out oxygen, which turns coffee stale. Unopened, these bags keep beans as fresh as the day they were roasted for up to 90 days (the outer limit for beans in such packaging cited by roasters including George Howell Terroir Coffee Company, in Acton, Mass., and national retailer Peet's Coffee & Tea). Of course, as soon as you open the bag, the clock starts ticking on freshness.

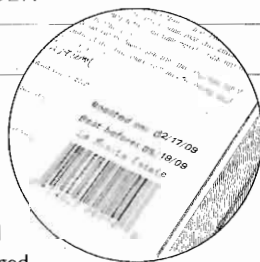


➔ **DON'T** rely on expiration dates. We've found some supermarket brands of coffee with expiration dates as far as two years out from the roasting date.

➔ **DON'T** buy preground coffee. Grinding speeds oxidation and the deterioration of flavor. When we compared coffee brewed from just-ground beans with coffee brewed from beans ground 24 hours earlier, tasters overwhelmingly preferred the coffee brewed from freshly ground beans. Grinding the night before is also not optimal: Studies show the exposed coffee cells begin to break down within the hour.

Flavor Countdown

To determine how long coffee maintains ideal flavor after roasting, we bought 30 bags of beans (all from the same batch, packaged within hours of roasting in one-way valve bags). Over two weeks, we used our haul to prepare two pots of coffee daily: one made with beans from a just-opened bag, the other using beans stored on the counter in a sealed zipper-lock bag with the air pressed out. A few very discriminating tasters noticed a change in taste after just a few days of storage; many tasters noticed a deterioration after 10 days; most tasters agreed the coffee tasted markedly less fresh after 12 days. Bottom line: Opened beans stored in an airtight container should be used within 10 to 12 days.



Where to Store Beans: Counter, Fridge, or Freezer?

If you finish a bag of beans in less than 10 to 12 days (see "Flavor Countdown," above), store them either in the original bag or in a zipper-lock bag away from heat and light. If you plan to keep beans longer than this time frame, store them in the freezer to limit contact with air and moisture. (Never store coffee in the fridge, where it will pick up off-flavors.) For the best results, portion beans (whether storing on the counter or in the freezer) in small zipper-lock bags in one-day allotments to keep air and moisture exposure to the barest minimum.



Freshness Test

To check if your beans are fresh, scoop ½ cup into a zipper-lock bag and press out all the air, then seal the bag and leave it overnight. If the beans are within seven to 10 days of roasting, they will make the bag puff up from the carbon dioxide that they release. If the bag remains flat, then the beans are not producing gas—a sign they've passed the point of peak freshness.



PUFFED = STILL FRESH



FLAT = PAST THEIR PRIME

BEST BREWING PRACTICES

For perfect coffee, the goal is to extract 18 to 22 percent of the soluble solids—coffee brewed below this range tastes sour and weak; above this range, it tastes harsh. Here are tips to ensure ideal extractive and flavor.

1. USE FILTERED WATER A cup of coffee is about 98 percent water, so if your tap water tastes bad or has strong mineral flavors, your coffee will be too. We found that the test kitchen's tap water masked some of the coffee's complexity, compared to coffee made with filtered water. Don't bother buying bottled water—just use a filtration pitcher.

2. HEAT WATER TO THE PROPER TEMPERATURE The most desirable flavor compounds in coffee are released in water between 195 and 205 degrees. A panel of our taster judged coffee brewed at 200 degrees as having the fullest, roundest flavor. Once water has boiled (212 degrees), let it rest 10 to 15 seconds to bring it down to this temperature.

3. USE THE RIGHT GRIND, BREW FOR THE RIGHT TIME These two components go hand in hand. Brewing time will dictate how you grind the coffee. In general, the longer the brewing time, the coarser the grounds should be (see "Recommended Brewing Methods" on page 17). As a rule, brewing should take 4 to 6 minutes. Don't try to adjust strength by changing the grind; grounds that are too fine for your brewing method will result in overextraction, while grounds that are too coarse will be underextracted.

4. ADD THE RIGHT AMOUNT The norm is 2 tablespoons of ground beans for every 6 ounces of water. If you prefer stronger or weaker coffee, adjust the amount of grounds per cup; changing the amount of water can easily lead to over- or underextraction, because the less water you use, the shorter the brewing time and vice versa.

5. KEEP THE POT CLEAN Since coffee beans contain oils, every time you brew a pot, some oil is left behind. Over time, that oil will make your coffee taste rancid. Rinse your pot with hot water after each use and scrub all brewing apparatus with hot soapy water at least once a week.



RECOMMENDED BREWING METHODS

While we can't dispute the convenience of an automatic drip coffee maker, we've learned that most models brew crummy coffee—they don't heat the water to the ideal temperature, and the brewing times are too long or too short. Unless you're willing to splurge on the one coffee maker we really like (See "A Cup Above" at right), we recommend a French press or manual drip.

French Press

How It Works: A French press (or plunger pot) directly infuses ground coffee in just-boiled water. Once properly extracted, the grounds are pressed to the bottom of the carafe.

Why We Like It: Because the coffee's oils are not filtered out, this method yields coffee nearly as full-bodied as espresso. It also allows you to control water temperature and brew time.

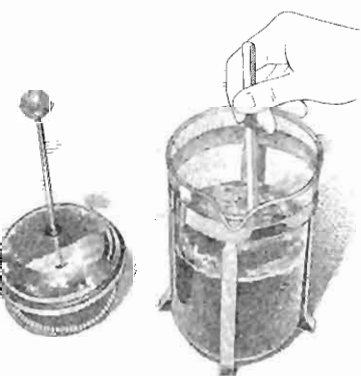
Downside: Cleaning requires taking apart the pieces.

The Right Grind: Medium-coarse (a little coarser than couscous).



1. Add 2 tablespoons coffee for every 6 ounces water (preheat pot first with hot tap water).

2. Add just-boiled water steadily, saturating all the grounds.



3. Using long spoon or chopstick, stir coffee to aid extraction.



4. Add lid and steep coffee for about five minutes (four minutes for smaller pots).



5. With even pressure, steadily press down filter.

Manual Drip

How It Works: Place ground coffee in a wedge-shaped filter holder and pour water over it into a container below.

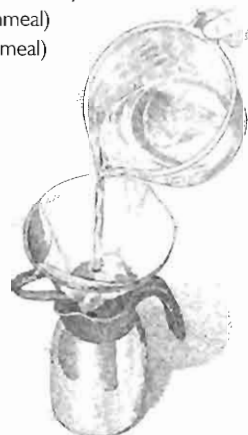
Why We Like It: The manual drip allows the natural acidity of coffee to shine through, yielding bright, flavorful coffee. As with the French press, you control water temperature and brew time.

Downside: Since you have to add water in batches, you can't leave the kitchen during brewing.

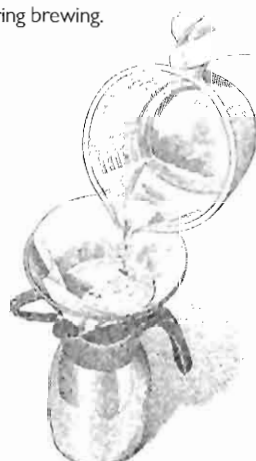
The Right Grind: Medium (like coarse cornmeal) for paper filters; medium-fine (like fine cornmeal) for metal filters.



1. Add 2 tablespoons coffee for every 6 ounces water to filter (warm thermos with hot tap water).



2. Pour 1/2 cup just-boiled water over grounds, saturating thoroughly; let stand 30 seconds.



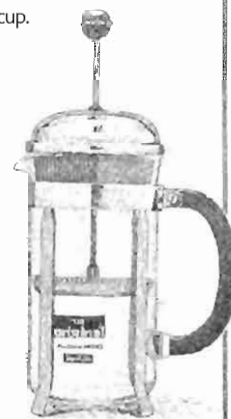
3. Pour remaining hot water over grounds, in batches if necessary, stirring gently after each addition.

A Cup Above

The following pieces of equipment are test kitchen favorites for a more enjoyable cup.

FRENCH PRESS BODUM CHAMBORD 8-cup French Press Price: \$39.95

Comments: Coffee connoisseurs willing to overlook the precise calibration and multiple steps required by the French press rave about the complex flavors of its brew. And few high-quality drip coffee makers can beat its price.



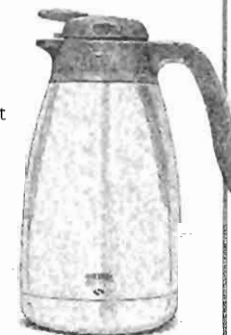
COFFEE GRINDER CAPRESSO Cool Grind Price: \$19.95

Comments: Like many blade grinders, this one struggles to grind evenly. But we like two other features: a large capacity and a deep cup that holds grounds without spilling.



THERMAL CARAFE THERMOS NISSAN Stainless Steel Carafe Price: \$50.99

Comments: Besides its excellent temperature retention, we liked this carafe's lever-action stopper, which allows for one-handed pouring without dripping. Both the carafe and lid are dishwasher-safe (most others aren't).



DRIP COFFEE MAKER TECHNIVORM Moccamaster Coffee Maker Price: \$265

Comments: If you must buy an automatic drip machine, this is the one. Though pricey, it's the only drip coffee maker that hit optimal temperatures for brewing and serving in our tests. It's also fast and very simple to operate, and pieces disassemble easily for cleaning.



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- How to buy and store coffee
- How to brew coffee