

essentials for BREWING GREAT COFFEE

Correct Coffee-to-Water Ratio

Measure carefully. The recommended proportion of coffee is 2 level tablespoons *ground* coffee for each six ounces of water. Cup markings on home brewers are usually 6 oz. cups.

Properly Operating Brewing Equipment

Equipment should be precisely calibrated, clean, and well-maintained. Coffee cleaners can be purchased at Caffé Pronto Coffee Roastery or at www.caffepronto.com.

High-Quality Water

Coffee is 98.5% water, so start with quality, fresh, cold water. Bottled or filtered water is recommended. Water should have no odor and contain no visible impurities. Hard water will not harm flavor and aroma but will mute natural acids in the coffee.

Freshness

Buy the freshest whole bean coffee available. Always buy coffee in small quantities. Coffee in a sealed bag with a degassing valve will stay fresh for up to two months. Air and moisture are the key enemies to coffee, so use the coffee within ten days after opening. Store in an air-tight container, preferably in the original bag. Keep in a cool, dry location. Do not freeze or refrigerate.

Grinding

Ground coffee stales 100 times faster than whole bean coffee, so only grind as needed.

A burr grinder will grind with the most consistency. Uniform grinding of coffee beans helps to insure better taste and aroma. Match grind to the brewing method (see next page).



90 Russell Street, Suite 500
Annapolis, Maryland 21401
410.626-0011 *tel*
410.626-1035 *fax*

1-888-MY-PRONTO
www.caffepronto.com

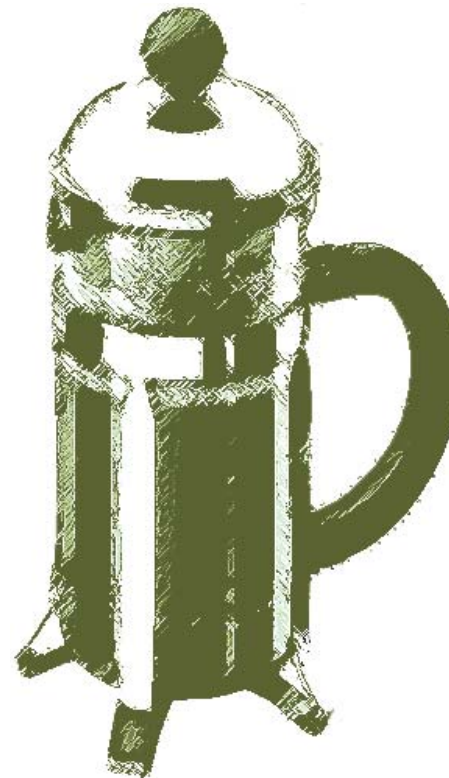
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Additional Resources Used
CoffeeGeek. <http://www.coffeegeek.com>.
Davids, Kenneth. "Coffee: A guide to Buying, Brewing, and Enjoying", fifth edition. © 2001.
Lingle, Ted. "The Coffee Brewing Handbook", 1st ed. SCAA, © 1996.

CAFFÉ PRONTO
Coffee Roastery

how to brew GREAT COFFEE

Quality Brewing Techniques



always remember the 3 Ts: & TIME, TEMPERATURE, & TURBULENCE

Brewing Goal

Extract coffee flavoring agents while leaving behind other soluble compounds such as sours and bitters.

Time

The time of contact between the coffee grounds and water must be long enough for the coffee to absorb the water, and for the water to dissolve and extract the coffee solubles. The ideal extraction time for steeping, drip, and vacuum brewing methods is 4-6 minutes. Too short, and the coffee will be thin and weak. Too long, and the coffee will be strong and bitter.

Temperature

The ideal brewing temperature is between 195°F and 205°F, or "just off the boil". The temperature should remain constant during the brewing cycle. Cooler water will extract more sours and hotter water more bitters from the coffee.

Turbulence

Water passing through the coffee grounds creates a mixing action, or turbulence. Turbulence is necessary for sufficiently wetting the grounds and for allowing the water to flow through and extract uniformly from the grounds.

Holding Coffee

Never reheat or microwave coffee, and do not keep on heat for more than 30 minutes. Coffee solubles have a lower boiling point than water.

When coffee is kept on heat or reheated, its solubles continue to "cook", causing bitterness.

Preheat cups and carafes to maintain temperature by filling them with hot tap water while the coffee is brewing.

french PRESS

also called plunger brewing, the french press is growing in popularity

The French press brewing method is essentially an open-pot steeping method with a filter. The coffee grounds and hot water mix together and steep in the pot. After four minutes of steeping the coffee grounds are “pressed” to the bottom by means of a fine mesh filter attached to a plunger. The coffee remains at the top, ready to be poured.

Attributes: The coffee usually produced is densely flavored, heavy, and more textured than standard filter coffee. The elegance and drama of a French press combined with its resulting coffee makes it an ideal brewing method for company and after-dinner dessert.

Preparing the water: Bring water to a boil in an ordinary tea kettle. Let the water sit for 30 seconds, and then pour over the grounds.



Grind: A French press requires a medium-to-coarse grind. Too fine a grind will both produce an overly strong cup of coffee and make plunging difficult.

Steeping Time: Four minutes.

Overall: Great flavor and even extraction, but pot does not keep coffee warm, and water must be heated manually.

DRIP brewing

easy and convenient, this is america's favorite brewing method

Drip filtration in theory is a simple process: coffee grounds are placed in a chamber fitted with a filter, hot water is poured over the grounds, and coffee drips out from the filter into a cup or carafe. This is done either manually, using a pour-over filter chamber, or automatically, using an electric automatic drip brewer.

Paper Filters: Paper filters produce a light-bodied, clear coffee free of oils and sediment. They come in white and brown filters - the brown filters being less processed, consequently adding a “cardboard” taste to the trained palate.

Cloth Filters: Cloth filters produce a clean, sediment-free cup while allowing more oils to pass into the coffee. However, they are difficult to clean.

Permanent Filters: Gold-plated filters and filters made of nylon or metal mesh produce a cup closer to that of French-press coffee, with more oil and sediment than paper filter drip coffee.

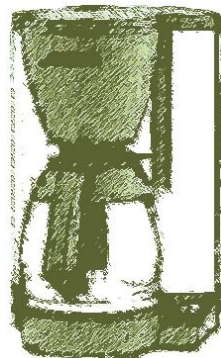
Grind: Depending on the filter and the shape of the brew basket, drip coffee requires a medium to medium-fine grind. Cone-shaped baskets require a

finer grind than flat-bottomed baskets. Permanent filters require a coarser grind to minimize sediment.

Troubleshooting: Disadvantages of drip filtration are the limitations in changing time, temperature, and turbulence. As automatic drip brewers heat water and distribute the hot water over the grinds at a preset rate (usually longer than four minutes, the ideal extraction time), only the grind can be changed to achieve ideal brewing, assuming the proper proportion of coffee (2 Tbls. ground for 6 oz. water). If the coffee is weak, try a finer grind; if the coffee is over extracted and bitter, try a coarser grind.

Improve turbulence when using a manual drip brewer by stirring the water and coffee in the filter. Mind the water's temperature, as the water and the resulting coffee tend to cool rapidly, producing a weak, cold cup. Pour the water just off the boil, and preheat the carafe.

Overall: Easy and convenient, models with thermal servers keep coffee warm, but brewing water in automatics are usually too cool (180°-185°F), extracting sour; brew time too long, extracting bitters; and virtually no turbulence as it relies on gravity.



grinders



Coffee lovers have two choices for grinders: burr grinders and blade grinders. Burr grinders have burrs, or steel plates, fitted closely together. One is stationary while the other is rotated by a handle or motor, and coffee passes between. The grind is adjusted by opening or closing the burrs. Burr grinders provide an overall consistent grind

which results in even extraction and minimal sediment in the final brew.

Blade grinders have a blade that spins at a high speed, cutting the coffee. The longer the grinder runs, the finer the grind. Blade grinders do not provide a consistent grind but are an affordable option for having freshly ground coffee at home.



POT vacuum

coffee filtration meets scientific ingenuity

Vacuum filtration, using a sealed two-chambered device, is a variation on the steeping method of brewing coffee. Water is poured into the lower chamber, and the coffee grounds are put into the upper chamber. Steam pressure forces hot water through a filter into the upper chamber, agitating the coffee. When the heat is removed, steam condenses in the lower chamber and creates a vacuum, pulling the coffee through the filter into the lower chamber.



Attributes: Coffee brewed using a vacuum pot often tastes fuller and richer than paper drip coffee while being free of the sediment of French-press coffee.

Grind: Vacuum pot coffee requires a fine-to-medium grind, depending on the filter.

Time: The ideal brewing time should be four minutes, measured from the moment the water begins to *clearly* mix with the grounds to the completion of brewing, when all the coffee has returned to the lower chamber. Use a finer grind to increase extraction time and a coarser grind to decrease extraction time.

Overall: Perfect temperature, superior turbulence, perfect extraction time (user controllable), keeps coffee hot after brewing,