

Brew Basics

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This is a basic guide for beginner's home brewers and casual coffee enthusiasts. It is intended to explain some of the basic elements on how to achieve a consistent cup of coffee. More than anything, these are guidelines as opposed to the law. Play around with your brews, adjust your grind size, and figure out what parameters (recipes) to find out what you enjoy the most. It is entirely possible to have a cup of bad coffee manually brewed just as easy as it is to brew a bad cup of coffee in an automatic home brewer. What it really comes down to is staying consistent and the amount of effort put into your brew.

Coffee Brewing Methods

There are many different types of coffee brewing devices out on the market. It is entirely up to the individual preferences and what works best for you. There are a few categories of brew method devices. They are divided up into categories called **full immersion**, **pour over**, and **hybrids**.

Full immersion brewers are called this because they feature brewing with the grounds steeping in hot water for a longer period of time. As with the French Press, the grinds are loaded into the device, hot water is added, and after a certain time (4 minutes is the standard), a plunger with a metal filter attached is pushed down, pushing the grounds to the bottom, leaving brewed coffee on the top portion.

Pourover brewers work very simply and are similar to the Mr. Coffee-type brewer most homes have. You have a conical (angled) device that holds a paper or gold filter, which is where the grounds are added. Hot water is poured over the top. The water and coffee brew in the top chamber as the water works to exit out the bottom of the filter and into a cup. Gravity works its magic, pulling the water through the grounds, then brewed coffee! The ceramic devices, such as the Hario V60, Melitta, Bonmac, and Kalita, all have different elements on the inside walls, a different number, shape and sizes of holes in the bottom, which allows for different flow, and results in slightly different flavor for each.

Then you have the **hybrid** devices. The Clever Dripper features a segment of full-immersion brewing, and a segment of the pour over brewing through a paper filter on the tail end of the brewing process. It has a stopper that opens up when the device is placed on top of a cup or server. This hybrid gives you the best of both worlds, the depth of a French Press, and nice heavy body in the cup. It keeps in some of the oils, the sediment, the fine particles left behind. Similarly, sometimes I find a regular pour over coffee lacks the depth of a French Press, because the brew time is much shorter, and the water simply passes through with no real immersion time. This device is great place to start a journey for manually brewed coffee.

Water, Weight vs. Volume, and Brew Time

You should always try to use **filtered water** when brewing. The Specialty Coffee Association of America (SCAA) suggests water should be heated to **195 to 205** degrees Fahrenheit. Adhering to these temperatures will help you achieve a consistent cup. When brewing coffee always try to use **weight** as opposed to volume. Weigh out your beans before you grind. That way you can accurately use your “recipes” for your brews and get more consistent cups each time you brew. When barista’s or home enthusiasts brew they use a **ratio**, in laymen’s terms this is simply the concentration you are brewing your coffee with. The SCAA suggests using 18:1 as a good starting ratio, meaning for every 1 gram of coffee you have 18 parts water (usually measured in milliliters/grams on a scale). It’s easy to find the ratio that you want to use, just multiply the amount of grinds you want to use by the ratio you want to use. **For example:**

40 grams of coffee x 18 (the ratio) = 720 (amount of water needed to brew)

Brew time and **grind size** have a direct relationship. It is important to find the parameters that best find the coffee you are brewing. Different devices require different brew times and different size grinds. This directly correlates to how you add the water, and the contact time with the water. Generally, if you brew the coffee too long or grind too fine, you will **over-extract** the coffee creating a bitter, chalky brew (think aspirin). If you don’t brew the coffee long enough or the grind is too coarse, the coffee **under-extract** and taste sour (think vinegar).

Grinding Fresh and Accurately

No amount of perfect brewing, quality water, or access to magical devices can compensate for pre-ground coffee. I recommend grinding coffee no longer than 15 minutes before you brew. The moment you grind up those coffee beans they start oxidizing. Blade grinders unevenly chop the coffee beans, while burr grinders can

give you a balanced cup. Having a large range of grind sizes will give you both over-extracted coffee and under-extracted coffee. This grind size affects the surface area of the coffee that is exposed to the hot water. Larger grinds will have less contact time with the water; the smaller ones will have more contact time with water. I like to think of this as cooking steak in a pan with all different sizes of steak. If you throw them all a pan – they will all cook unevenly. You'll find yourself a pan full of over-cooked steak and undercooked steak. The same is true for coffee.

Below is an illustration with popular brewing devices, and suggested brew time and grind size. Happy Brewing!

