

RISTRETTO

GRIND THE BEANS

Basically, a Ristretto is a shortened espresso. This means that the same extraction time of an espresso (25 seconds) gives less liquid (about 15-20ml). The grind of your mill remains the same, but more coffee beans used. Some sources recommend a 1:1 ratio-i.e. 1g of ground coffee on 1ml extraction. This would be about 15-20g of ground coffee for a ristretto. The advantage of this method is, that the often tedious process of finding the right grind setting does not have to be started anew every time.

You can choose beans that you would use for an espresso, such as an Arabica or Robusta bean. An Arabica bean will be sweeter with hints of berries and a higher acidity. The Robusta has a stronger, nuttier taste and contains more caffeine than the Arabica. Check out local coffee beans for new and different kinds of Arabica or Robusta beans. Purchase a burr grinder that grinds the beans between two abrasive surfaces. This will result in more consistent and fine grounds. If your grounds are not consistent, this may lead to some going through the filter and into your ristretto.

Chances are the grinder you already have is one with a blade that's for brewing a regular cup of coffee, so double check before you throw the beans in there. The rich, spicy aroma created by the grinding of fresh roasted coffee is nothing short of amazing.

Grinding coffee can be, not only enjoyable, but a relatively simple affair. However it should be noted that the importance of how to grind coffee properly is often overlooked even though it is a crucial step in the anatomy of a perfect cup.

Grinding your coffee beans with a burr grinder is, for many, the best upgrade (short of buying better beans) for your coffee experience.

Burr grinders come in many varieties and at a wide range of prices, from about \$100 up to "price is no object". They're also where you find all kinds of bells and whistles, from weight-based dosing to anti-static materials to titanium burrs. The Breville Smart Grinder Pro, is a cult favorite among coffee lovers. For drip coffee, some people dial their grind size to 39 (1 is finest, and 60 coarsest). What you really want from a burr grinder is a) to pulverize the beans (which creates more surface area than slicing/cutting), and b) to produce a super-consistent grind, so you get the same taste experience every time. From a coffee tasting standpoint, the flavor extraction with a burr grinder can yield depth and subtlety that can be transformative; out of nowhere, you'll be able to taste notes such as baker's chocolate, blueberry, or almond.

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When it comes to grind size, there are three factors which make the biggest difference: contact time, extraction rate and flow rate. To put it simply: The extraction rate of coffee grounds increases with a larger surface area.

To increase surface area, grind the coffee finer. The higher the extraction rate, the less contact time is needed. A finer grind can reduce the flow rate of water, increasing the contact time.

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Knowing this, if you have a brew method with a short contact time, the grind should be finer. In an immersion brewer, which steeps coffee grounds in water for several minutes, the contact time is much higher and, thus, requires a more coarse grind than most other brew methods.

If the contact time is too high or the grind is too fine, it will result in an over-extracted brew which can be bitter. If the grind is too coarse or the contact time is too short, the coffee will turn out weak. Finding the proper balance between the two will help in producing the best cup of coffee possible. Different types of filters, pressure and temperature can also play a part in determining grind size, but most brewing methods operate between 195 and 205 degrees Fahrenheit (90.6 and 96.1 degrees Celsius) with little to no added pressure.

Quality burr grinders give you the power to grind coffee to a variety of sizes. Each grinder has its own profile and sizes may vary.

A coarse grind is rough, and has big chunks of coffee in it. Typically, when it comes to grinders, higher number settings make for coarser grinding. A medium grind is a little more like sand in texture and consistency, except it's still fairly rough. Think of the classic grind you might remember from pre-ground coffee in a can or pouch. A number in the middle of the range will give you this grind in your machine.

A fine grind is like powder – it's hard to see individual grounds and might even cake up if you press it between your fingers. The lowest numbers on grinders produce fine grinding.

Now that you are ready to get your grinder, there are also some precautions. As with many consumer products, you need to beware the imitators and snake oil.

On the market today are a number of grinders under \$100 that profess to be burr mills, but are little better than blade grinders gone incognito. False burrs are not sharp enough to create a very consistent grind, and should be avoided.

As mentioned before, burrs should have sharp opposing cutting surfaces. But false burrs only get half that equation right. Rather than cutting with sharp edges, false burrs bludgeon the beans with large teeth that are often paired up with rather wimpy motors. You'll wind up with ground coffee, but the consistency won't be very good, especially in the medium-to-coarse range. Those teeth add a good deal of wobble to the burrs themselves, because they don't break up the coffee as easily as a sharp surface would, and the impact forces the burrs slightly out of alignment each time they make contact. Your best bet is to look for machines with conical steel burrs if you're on a tight budget. Conical burrs work just as well as flat, and if they're made of steel you can bet they'll be using sharp edges rather than chunky teeth, and your grind quality will be all the better. For freshness, always grind your coffee right before you brew. Decide on your grind size and adjust your machine accordingly.

Keep your grinder clean before and after uses. A fine grind will have a much smoother texture. The texture should be very similar to the texture of table salt or fine sugar.

These methods leave flavours and flaws with nowhere to hide. Any deficiencies in the blend or the bean will be discernible due to the intensity of the taste – even more so than it is in a single shot of espresso.



If you're the kind of person who grinds their coffee beans fresh every day, it's understood that you truly care about how your morning cup tastes. It's also known that brewing your own coffee is not as easy as grabbing a cup on your way to work. When it comes to making a great cup of coffee, everyone talks about the freshness of beans, the temperature of the water and even the bloom that happens when water and beans meet. But equally important is how coarsely or finely the beans are ground. It'll be very terrible for you to go through all the trouble of making a fresh cup of coffee only to get it wrong while grinding the beans.

There is a few easy ways to determine if you are grinding your coffee beans correctly. Brewing a great cup of coffee after grinding coffee beans seems easy enough, but once you take that first sip, you realize it tastes nothing like your local speciality coffee shop. The good news is that making great coffee is more about the technique used more than it is about the gadgets. That full-bodied cup of coffee is achievable in your own home if you avoid these common mistakes.

The amount of time that water and coffee need to be in contact with each other is directly related to the particle size of the grind. The finer the grind, the more surface area of the bean is exposed to water. The more surface area, the less dwell time is needed.

Under extracted coffee grounds will produce coffee that tastes sour, acidic and salty while over extracted coffee grounds will produce coffee that tastes bitter or hollow with a lack of any notable coffee bean flavours.

Pay attention to the quality of the beans that you choose. Beans which have been roasted for longer than required time have a dark, shiny appearance. They produce a brew with a strong and bitter taste. On the other hand, medium roasts offer a smooth taste and the beans are light coloured.

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Do not grind your coffee beans too early as this will spoil the quality of your brew. Make sure that your brewing water is ready when you grind to avoid losing the flavour as you wait for it to heat. If you grind more coffee than you need, you will end up wasting it. So, determine your daily consumption and try your best to grind just what you need. You might need to play around with this the first few times until you get the right amount. Have you ever drank a cup of coffee and thought to yourself, "Wow, that's really weak!" Perhaps there is too much water—or not enough coffee—for the proportion to work. Another very common mistake when grinding coffee is the timing,

Timing is always a problem — whether grinding coffee, baking a cake or fry some chicken. Too many people take the time suggested too literally — they stick to it, as you did, until the coffee beans turn to dust, the cake is only half-baked and the chicken fried way past crisp. You need to think of time as only a suggestion, as an approximation of what it will take to get the job done. If your new grinder gets your beans ground the way you like them in 10 or 16 or 20 seconds, go with that. Just how finely you should grind the coffee depends on what you use to brew it. A percolator takes a coarse grind; an espresso pot uses a very fine grind.



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ESPRESSO MACHINE

For many coffee lovers, making coffee rivalling your favourite coffee shop without having to make a run is the dream scenario. This is certainly a great idea if you love good coffee, and with some guidance you should be able to choose the best espresso machine to meet your individual needs, desires and budget. With a good machine, some quality coffee beans, a little practice and some patience, you can soon be filling your cup with pure delight that rivals (or exceeds!) drinks from the finest cafes. And, the beauty of owning and mastering your own espresso machine is that you can brew anytime you want, the way you like it, and at a fraction of the cost/cup versus going out to a restaurant or cafe. Most of the espresso machines we carry also include a steam wand to froth milk so you can prepare cappuccino and latte drinks as well.

There are five general types of espresso machines, the first step in your process should be to narrow down which type of machine is best for you. This will depend on multiple factors including:

Desired ease of operation, including steps required to brew, effort required to optimize your espresso shots, additional equipment that may be needed (such as a coffee grinder), and cleaning/maintenance requirements.

Your preference either towards simplicity, or hi-tech sophistication with lots of features and automatic functions.

The amount of counter space you're willing to allocate to an espresso machine. Some machines are very small and compact, while others (especially super-automatic machines) can be quite large. And last but not least, your budget \$\$\$.

Please know, you don't need to spend a fortune to enjoy authentic, delicious espresso, cappuccino and latte drinks at home. More important is the quality of the espresso beans and coffee grinder (to ensure proper fineness & grind consistency). With that said, it's also important to know that you can't brew true espresso with the commonly found, cheap department store "espresso" machines (steam powered, no brewing pump), we discuss this more below.

In our experience, there are two common mistakes folks make with their budget. They under-allocate money to a grinder and often overbuy on the espresso machine side. We get it. Some of the most beautiful machines are large dual boiler machines and we understand that this purchase is part form and part function. There is certainly a degree of kitchen art in these handcrafted beauties. Our goal is to replicate café performance at home while balancing aesthetics and space.

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ESPRESSO MACHINE

Semi-automatic espresso machines are the most common type, featuring an electric brewing pump which is manually turned on and off by the user. These machines are relatively simple to operate, but (along with lever style machines) do require the most manual intervention.

When considering to buy an espresso machine, there are a few important things to think about. How often will you use your machine? Is this for a single morning cup, or will you use it throughout the day for multiple drinks? Will you entertain friends and family and need to make back to back drinks?

For single morning drinks, a single boiler or small dual boiler will be adequate. If you make multiple back to back drinks during the day (for example, two 12 oz cappuccinos in the morning and 2 cortados in the afternoon) a larger dual boiler machine will likely be preferable.

The space you have on your counter is also an important component. Run over to your ideal space and grab a tape measure. If you don't want to run or don't have a tape measure, you can estimate. The real questions here are whether you have cabinet clearance constraints for either your espresso machine (most non-plumbed machines have top-filling reservoirs) or your grinder (hoppers also fill from the top). While most customers work around this, it is a key consideration.

Whether you plan to plumb this machine in now or in the future is also important.

Choosing an espresso machine can be a daunting task. You want to get a durable model that does everything you want.

But you don't want to get stuck with a machine that pulls a sub-par shot and breaks down easily.

In terms of espresso extracting mechanisms, there's a few different types of espresso machines:

Stovetop: Super cheap but don't make true espresso (just really concentrated coffee)

Capsule-based: Step up in price and convenience but still not true espresso

Steam: Use steam pressure for extraction but still not true espresso

Semi-automatic pump: Often \$500+ and involve some labor but make true espresso

Super-automatic pump: Do-it-all machines at the top of the price range

As you move down the list above, the espressos tend to improve in quality. Both semi-automatic and super-automatic espresso machines are capable of making A+ espresso; the only real difference between the two is how much work you want to put in. Semi-automatic machines tend to require more cleaning and more maintenance, and you may need to buy a separate grinder. The benefit is these machines generally cost less than super-automatic espresso machines.

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Semi-automatic espresso machines are the most common type, featuring an electric brewing pump which is manually turned on and off by the user. These machines are relatively simple to operate, but (along with lever style machines) do require the most manual intervention.

Typical Brewing Steps Using Semi-Automatic Espresso Machines:

*Verify there is water in the reservoir, turn on the power, and wait until the machine is warmed up (typically just a few minutes);
Remove portafilter handle (which holds the metal filter basket);
Scoop a measured amount of ground espresso into the filter basket and tamp (press) down;
Reinstall portafilter, place brew pitcher (or cup) under the portafilter and press the brew switch;
Once the desired brew volume is achieved, turn off the brew switch;
Repeat if desired.*

The above process is pretty straight forward and with a little practice you can create rich, authentic espresso as good or better than any coffee house. Some experimentation is required to achieve a perfect espresso; however, the primary variables are mostly limited to espresso bean quality, grind fineness and tamp pressure.

OPTION 1

SEMI-AUTOMATIC

ESPRESSO MACHINE

OPTION 2

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SUPER-AUTOMATIC

Super-automatic espresso makers are sophisticated machines that go from bean to cup at the touch of a button. They utilize a built-in coffee grinder and brewing mechanisms that automatically grind the coffee, fill and tamp the filter basket, brew a pre-determined volume of espresso then dump the used coffee grounds into an internal waste container. Each cycle typically takes a couple of minutes to complete; at which time it can easily be repeated to brew another shot. These machines can also froth milk for preparing cappuccino or latte using either a steam wand or automatic milk frothing system depending on the model.

Typical Brewing Steps Using Super-Automatic Espresso Machines:

*Verify there is water in the reservoir and that the coffee beans are in the grinder, turn on the power, and wait until the machine is warmed up (typically just a few minutes);
Place a brew pitcher (or cup) under the brewing head; and then press a pre-programmed brew button; the machine will then grind the coffee, fill the filter basket with ground coffee and tamp it down, brew a measured volume of espresso, and then dump the used coffee grounds into an internal waste container.*



ESPRESSO MACHINE



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THE CUP

CHOOSING RIGHT

Just like how there are specifications to how their beans should be ground, ristretto also requires a certain type of cup. Most ristrettos are served in espresso cups, so make sure you have one handy. Espresso cups are usually about the size of a shot glass and are either glass or ceramic. Some espresso cups have handles and some don't, so choose whichever kind appeals to you most. Other than personal taste though, there are also some other elements that can determine which type of cup that you should choose for your ristretto. Just ask an oenophile (connoisseur of wine) if the glass in which their wine is served matters. They will respond with a resounding, yes. It does matter what type of glass your wine is served in. In fact, connoisseurs of any drink, be it a scotch or a milk shake, will tell you their drink of choice tastes better when served in the right vessel. This is also true when it comes to coffee, obviously. Yet we see coffee served in all the wrong vessels. Even high end cafés serve in cups that are the

wrong size or worse yet, wrong material. Ideally, an espresso cup should be 2-3 oz. If the cup is too big, the crema spreads out, becomes thin, and disappears quickly. Additionally, a large cup affects the temperature of the espresso and you run the risk of it becoming cold quickly. Of course, if you regularly drink a doppio espresso, a 3.5-4 oz. cup is better. Here is a trick if you want to keep your espresso hot – heat the cups with boiling water or put them in the microwave for a few seconds with hot water. If the porcelain is hot, the espresso will remain hot longer. There are also certain details to consider when it comes to the shape of the cup. You want a shape that hugs the espresso. A cup that tapers at the bottom allows the crema to float on top. It also allows the aroma of the espresso to be enjoyed before the first sip. A rounded bottom, allows the liquid to swirl easily permitting you to get every last drop. Yes there are some shapes that are interesting, for example, we have seen square espresso

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so cups. While these may be fun and aesthetically interesting, they are not suitable or ideal for drinking espresso or ristretto. Porcelain is king and the material of choice when choosing the iconic espresso cup. Other materials may be fashionable, but you will find that espresso served in anything, but porcelain runs the risk of going flat quickly. Also, porcelain ensures temperature is distributed evenly, which is not always the case with other materials. In terms of the cup's rim, consider whether it is rounded or sharp, thick or thin. Espresso aficionados will tell you a thick rounded rim allows their lips to sit comfortably on the cup allowing the liquid to roll easily into their mouth. While the exterior may be chosen based on color preference or décor, the inside of the cup must be white. Only with a pure white interior can one appreciate the caramel tones of the crema and the rich color of the espresso. It is not a coincidence that Italian cafés serve espresso in cups that are

white on the inside and outside. It may not seem like a big deal, but a handle can make want to pick up a cup or just bypass it and pick up the cup by the body. A flat handle allows the user to be able to balance the cup comfortably in their hand. The size of the handle will either allow a finger to slip through it or not. Given the size of espresso cups, handles that are too thin feel like they are going to break when you pick them up. Be sure to consider the elements of size, shape, and material before you buy. Having the right cup will make your espresso experience that much more enjoyable. The other thing to consider is the cups you use when entertaining. It is understandable that you don't want to spend time washing cups when you have guests around, so consider using disposable espresso cups. Yes there are such things. Even the disposable variety take into consideration important elements like size and shape. There is nothing worse than getting an espresso in a large 8 oz cup.



An espresso cup is sometimes called a demitasse. Demitasse is the French word for half cup, and it holds about 2-3 fl oz. An espresso doppio normale is about two fl oz volume, and a lungo doppio can be up to 3 ounces. With this information in mind, you can plan your purchase. If you drink doppio lungo shots, the 3 oz cup is the best cup. If you mostly drink normale shots a 2 oz cup is fine. The most important thing for an espresso cup is thermal insulation. Espresso gets cold in seconds. Part of the reason is the lower brewing temperature; the other reason is the small volume of the coffee. With a small volume, the heat exchange is much faster. For this reason, the most important feature of an espresso cup is the insulation. Regular glass cups are cute, but they lose temperature very fast. The best are the double wall glass cups and the ceramic ones. Yes, glass can be fine for espresso cups, if it's designed properly. The ceramic ones can hold the espresso hot for a longer time, but they need to be preheated. To be honest, I never preheat mine. I like to drink my coffee a bit colder, so I can taste it, and understand the flavors. If coffee it's too hot, all I can taste it's burning coffee. Among ceramic materials, the best is porcelain. Porcelain retains heat the longest, but if don't prewar your cup can lower your drink's temperature consistently.

DEMITASSE CERAMIC CUPS

As stated, there's a vary of different materials for cups. To sum it up, in terms of material, ceramics, in general, and glass are good. It is usually advised that the best is porcelain, (a ceramic material). Never use metallic, plastic or Styrofoam cups. They impart a specific taste to your coffee. Paper cups are better, if you have to. Styrene is even dangerous to your health. Double wall espresso cups are very popular now, because they look great, however, a porcelain cup is better.

Although it's based on personal needs, sometimes people choose to purchase a saucer for their cup. This raises the question, do you need saucers for your cups? A saucer is both aesthetic and functional. There is nothing more elegant than a cup on a saucer. But again, this is just me; you might not even like the saucers. Do you need a handle? For larger cups with a more consistent heat exchange, a handle is the right way to go.





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PULLING THE SHOT

Now that you are ready with the right ground coffee beans, espresso machine, and cup, it is time to pull your shot of ristretto. The first thing to do is to fill the espresso machine's reservoir with cold, filtered water. Of course, there are specifications for the water type. Using cold, filtered water matters! Unfiltered water won't taste good, distilled water can ruin your machine, and hard water can accumulate lime in your machine. Let your water heat up. Turn on your espresso maker by pressing the power button and let the water heat up, which could take anywhere from a few minutes to 45 minutes.

It isn't too hard to determine when your water has been heated up. Many espresso machines will have a light that turns from red to green to signal that the water is heated. Place 14 grams of the ground coffee in the filter. Using about 14 grams of ground coffee is the amount your espresso machine needs to produce a single cup of strong ristretto. Tamp the coffee in the filter. You should tamp, or pack down, the coffee in the filter as you would do in an espresso. Tamping will get rid of spaces between coffee grinds. In case you didn't grind your coffee very finely, you should tamp down your coffee more firmly to allow less space between the grinds.

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After tamping down the coffee into the filter, return the filter to the machine. Put the filter back into the machine by sliding it into place and then turning it towards your right to lock it into position. Get ready to brew! The filter isn't hidden under a cover like it is in normal coffee machines. Instead, it slides into a cylindrical mechanism in the middle of the espresso machine. Brew for 25-30 seconds. To turn on the water flow, most espresso machines have a knob that you have to twist on. You should only pull water through the beans for 15 seconds. This will result in a less acidic and fuller taste.

You should end up with about 0.5oz (~15mL) of coffee. If you've have done everything right, you will have a very delightful cup to enjoy! The idea of a ristretto shot is similar to the first cold pressing of olive oil, or the skimming of cream from milk. Imagine you spilled some chocolate chips onto the beach; if you scoop them up with big handfuls you will get a lot of sand, but if you use restrained handfuls you will only get chocolate chips and no sand. Put another way, a ristretto shot contains a higher proportion of good stuff, like sweet, roasted, nutty brown flavors, and a lower proportion of the bitter, grassy and sour flavors we typically dislike.



#1
 This method will not necessary result in what's traditionally considered a *true ristretto*. However, this method allows you to pull the shot on certain machines like Super-Automatics or espresso machines with pressurised filters.
Get your grind as fine as possible for the machine you are using.
Tamp the filter in the usual way.
Start your extraction and let it run until you have 30mls of coffee for a double Ristretto.

This method of preparation is simply going to give you an espresso that has been stopped half way through - so it will not be as concentrated or syrupy as a true ristretto. If thats all your machine will allow, it's better than nothing!

#2
 Reading this booklet to this point, you are probably reconsidering your current assets for making coffee. Although it is advised to get a proper espresso machine, don't despair if you are not able to get one. Thanks to the development of homeware products, there are options. You can also enjoy a decent ristretto in a coffee machine that uses coffee capsules. As blasphemous as it may sound, some brands offer decent ristretto coffee capsules. Although this book has been advocating for you to become your own ristretto connoisseur, the use of coffee capsules can allow you to enjoy ristretto without going through a learning curve. These coffee capsules have already done the bean selection, grinding, and the machine will know how to pull it properly. What a huge shortcut!

SHORTCUTS

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