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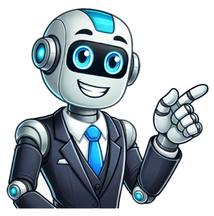

The only thing that can soften the blow of your alarm going off in the early morning is knowing your coveted cup of coffee is moments awayif youre a coffee drinker, that is. And since nearly two-thirds of Americans report drinking coffee daily, theres a good chance youre a java fan. Theres a lot to love about coffeeit tastes great, provides a jolt of energy-boosting caffeine, and may even have some health benefits.Though ordering a cup of coffee seems straightforward enough, coffee menus continue to get longer and more complex. With so many types to choose from, it can be overwhelming. So, lets cover some of the basics. Espresso (not expresso) should be part of every coffee drinkers vocabulary. Its a popular caffeinated beverage, but its not the same as regular coffee. Even if youve never ordered it before, your go-to coffee order may very well be an espresso-based drink. Heres what you need to know about the versatile coffee beverage that is espresso. Espresso is a type of coffee. Specifically, its a concentrated form of coffee, and a serving of it is referred to as a shot of espresso. Since its more concentrated than regular coffee, its higher in caffeine. Espresso shots, therefore, tend to be strong and small (about an ounce).One misconception about espresso is that you need a bag of espresso beans to make it, but its not the type of beans that determines whether or not a coffee drink is espresso. Its actually how the coffee is brewed that makes it espresso. Like regular coffee, espresso is the result of brewing coffee beans with hot water. One of the key differences is that high pressure is used to brew espresso. Still a bit confused about coffee vs. espresso? Keep reading to learn more about how the two caffeinated beverages differ. An 8-ounce cup of regular coffee contains about 96 milligrams (mg) of caffeine and a 1-ounce shot of espresso contains about 63 mg. While regular coffee technically contains more caffeine than a shot of espresso, you can have a larger volume of regular coffee while staying under the recommended 400 mg caffeine limit per day. If espresso is your preferred caffeinated beverage, youll need to be content with drinking fewer ounces per day since its stronger ounce-for-ounce. There are many ways to make coffee, but to make true espresso, youll need to choose the right method. Regular coffee machines use gravity to slowly drip hot water over coffee grounds, but espresso machines use around nine bars of pressure to quickly force hot water through tightly packed coffee grounds. While the process is quicker, expect a learning curve with espresso machines. With more parts and steps, theyre a bit more complicated than your typical drip coffee maker. Theyre also more expensive. When you enter the world of coffee brewing from home, grind size is one of the first things you learn about. Any coffee aficionado will tell you that grinding your own coffee beans makes a huge difference. But dont fret if you dont have a coffee grinderyou can still make espresso with coffee grounds. Just make sure theyre finely ground. Since water comes into contact with the grounds for a shorter amount of time, using a fine grind size gives the water more surface area to come into contact with.You can also buy espresso beans, which arent all that different from regular coffee beans. Espresso beans mainly refer to coffee beans that have a darker roast. If you drink coffee because you love the taste, espresso may be right for you. The unique way of preparing espresso extracts more flavor, resulting in a fuller body, thicker viscosity, and bolder taste.You may also notice that espresso has a frothy foam layer at the top. This is called espresso crema, and its made from tiny pockets of carbon dioxide gas that create bubbles. Not everyone loves the taste of espresso crema, but we can all agree that it creates a stunning presentation. Espresso is most commonly made with dark roast coffee beans. Like the name suggests, the beans are roasted for longer, imparting a more intense flavor. Blonde espresso, on the other hand, is made with lightly roasted coffee beans. The beans arent roasted as long, so the flavor is more mild. However, its even higher in caffeine. Espresso is a very versatile caffeinated beverage. You can drink it on its own, or make espresso-based coffee drinks. Though its called a shot of espresso, you dont need to chug it. Rather, you should sip on espresso. Its up to you whether you skim off the layer of crema, or stir it into the rest of the espressothere are arguments to be made for either. When youre ready to try an espresso-based drink, here are a few to consider:Americano: A hot coffee drink made from equal parts espresso and water. If espresso is too strong for you, this is a good way to dilute it.Cappuccino: A hot coffee drink made by pouring steamed milk over espresso, followed by a thick layer of frothed milk.Espresso martini: A creamy alcoholic beverage thats also caffeinated. It contains espresso, vodka, and coffee liqueur, and its served cold.Latte: Similar to a cappuccino, a latte is a coffee drink made from espresso, steamed milk, and frothed milk, though it contains less froth. Lattes can be served hot or cold, and may feature latte art on the top.Macchiato: A hot coffee drink made from a shot of espresso topped with a bit of milk froth.Mocha: An espresso-based drink flavored with chocolate. Made from steamed milk, chocolate, and espresso, think of it as a hot chocolate with espresso added to it.View synonyms for espressostrong coffee made by forcing steam or boiling water through ground coffee beansan apparatus for making coffee in this wayCollins English Dictionary Complete & Unabridged 2012 Digital Edition William Collins Sons & Co. Ltd. 1979, 1986 HarperCollins Publishers 1998, 2000, 2003, 2005, 2006, 2007, 2009, 2012Origin of espresso1First recorded in 194045; from Italian (caff) espresso pressed (coffee), past participle of esprimere to press out, from Latin exprimere; express (def.)Origin of espresso1C20: Italian, short for caff espresso, literally: pressed coffeeHow does espresso compare to similar and commonly confused words? Explore the most common comparisons:Examples have not been reviewed.While standing in line, the aroma of baking croissants wafted, and the buzzing of espresso machines reverberated off the skeletal remains of an old church that now houses the caf.The heist has captivated L.A.s jewelry industry, whose epicenter is St. Vincent Court, a bricked alley in downtown where jewelers congregate to trade gossip between sips of espresso.I get a double espresso, straight with nothing in it.Take the Yuanyang Martini, an espresso martini with black sesame and black tea or Red Robe, featuring cognac, bourbon, oolong tea and white miso.Before games, throughout the day, he started drinking three cans of Red Bull and a double espresso and eating a cheese and ham omelette with baked beans.What doesespresso mean? Espresso is a kind of strong coffee made by forcing steam or boiling water through ground, dark-roast coffee beans.The word espresso often refers to a cup of espresso, as in I like to have an espresso after dinner.It can also refer to an espresso machine, as in I got an espresso so now I can make my favorite drinks at home.Espresso is so strong that its usually served in a very small cup. Sometimes, people have a shot of espresso by itself or added to their coffee to make it stronger.A cappuccino is espresso with foamed milk.A somewhat common variant of espresso is expresso. More about that below.Example: When it comes to coffee, I love espressothe stronger the better!espressivoespritBrowse#aabbccddeeffgghhiijjkkllmmnnooppqqrrssttuuvvwwxxyyzzAboutCareersContact usCookies, terms, & privacyHelpFollow usGet the Word of the Day every day! 2025 Dictionary.com, LLCType of strong coffeeFor other uses, see Espresso (disambiguation).EspressoA cup of espresso in Ventimiglia, ItalyCountry of originItalyIntroduced1901ColorBrown, blackCoffee, brewed, espresso, restaurant-preparedNutritional value per 100g (3.5oz)Energy8.4kJ (2.0kcal)Carbohydrates0.Fat0.2Protein0.1Vitamins and mineralsVitaminsQuantity %DVRiboflavin (B2)15% 0.2 mgNiacin (B3)33% 5.2 mgMineralsQuantity %DVMagnesium19% 80 mgOther constituentsQuantityWater97.8 gTheobromine0 mgCaffeine212 mgLink to Full USDA Nutrient ReportPercentages estimated using USrecommendations for adults,[1] except for potassium, which is estimated based on expert recommendation from the National Academies[2]Espresso (/sprso/ , Italian: [esprsso]) is a concentrated form of coffee produced by forcing hot water under high pressure through finely ground coffee beans. Originating in Italy, espresso has become one of the most popular coffee-brewing methods worldwide. It is characterized by its small serving size, typically 2530 ml, and its distinctive layers: a dark body topped with a lighter-colored foam called "crema".Espresso machines use pressure to extract a highly concentrated coffee with a complex flavor profile in a short time, usually 2530 seconds. The result is a beverage with a higher concentration of suspended and dissolved solids than regular drip coffee, giving espresso its characteristic body and intensity.[3][4] While espresso contains more caffeine per unit volume than most coffee beverages, its typical serving size results in less caffeine per serving compared to larger drinks such as drip coffee.[5]Espresso serves as the base for other coffee drinks, including cappuccino, caff latte, and americano. It can be made with various types of coffee beans and roast levels, allowing for a wide range of flavors and strengths, despite the widespread myth that it is made with dark-roast coffee beans.[6] The quality of an espresso is influenced by factors such as the grind size, water temperature, pressure, and the barista's skill in tamping the coffee grounds.The cultural significance of espresso extends beyond its consumption, playing a central role in coffee shop culture and the third-wave coffee movement, which emphasizes artisanal production and high-quality beans.Some English dictionaries translate espresso as 'pressed-out',[7] but the word also conveys the senses of expressly for you and quickly:The words express, expres and espresso each have several meanings in English, French and Italian. The first meaning is to do with the idea of "expressing" ("pressing out of") or squeezing the flavour from the coffee using the pressure of the steam. The second meaning is to do with speed, as in a train. Finally there is the notion of doing something "expressly" for a person... The first Bezzera and Pavoni espresso machines in 1906 took 45 seconds to make a cup of coffee, one at a time, expressly for you.[8]Modern espresso, using hot water under pressure, as pioneered by Gaggia in the 1940s, was originally called crema caff (lit.'cream coffee'), as seen on old Gaggia machines, due to the crema.[9]The spelling expresso is mostly considered incorrect, although some sources call it a less common variant.[10] It is common in French and Portuguese. Italy uses the term espresso, substituting s for most x letters in Latin-root words, with the term deriving from the past participle of the Italian verb esprimere, itself derived from the Latin exprimere, which means 'to express', and refers to the process by which hot water is forced under pressure through ground coffee;[11][12] x is not considered part of the standard Italian alphabet. Italians commonly refer to espresso simply as caff (lit.'coffee'), espresso being the ordinary coffee to order. The same happens in Portugal (caf), with some regional variations (bica in Lisbon and cimbalino traditionally in Porto). In Spain, while caf expreso is seen as the more formal denomination, caf solo (alone, without milk) is the usual way to ask for it at an espresso bar. Some sources state that expreso is an incorrect spelling, including Garner's Modern American Usage.[13] While the 'expresso' spelling is recognized as mainstream usage in some American dictionaries,[14][15] some cooking websites call the 'x' variant illegitimate.[16][17][18] Oxford Dictionaries online states: "The spelling expresso is not used in the original Italian and is strictly incorrect, although it is common."[19] The Oxford English Dictionary and Merriam-Webster call it a variant spelling.[13] The Online Etymology Dictionary calls expresso a variant of espresso.[20] The Oxford Dictionary of American Usage and Style (2000) describes the spelling expresso as "wrong", and specifies espresso as the only correct form.[21] The third edition of Fowler's Modern English Usage, published by the Oxford University Press in 1996, noted that the form espresso "has entirely driven out the variant expresso (which was presumably invented under the impression that it meant 'fast, express')".[22]Angelo Moriondo, inventor of an important precursor of the espresso machineFirst patent (vol. 33 n. 256, 1884) for the espresso machine, by Angelo MoriondoAngelo Moriondo, from Turin, patented a steam-driven "instantaneous" coffee beverage making device in 1884 (No. 33/256). The device is "almost certainly the first Italian bar machine that controlled the supply of steam and water separately through the coffee" and Moriondo is "certainly one of the earliest discoverers of the expresso [sic] machine, if not the earliest". He was granted patent no. 33/256 dated 16 May 1884 (according to the "Bollettino delle privative industriali del Regno d'Italia", 2nd Series, Volume 15, Year 1884, pp. 635 655).[23][24] Unlike true espresso machines, it brewed in bulk, not as individual servings.Luigi Bezzera and one of the first espresso machines at the World Expo 1906 in Milan, ItalyBezzera Eagle 2 Coffee Maker, presented at Central Cafe BudapestSeventeen years later, in 1901, Luigi Bezzera, from Milan, devised and patented several improvements to the espresso machine, the first of which was applied for on 19 December 1901. Titled "Innovations in the machinery to prepare and immediately serve coffee beverage"; Patent No. 153/94, 61707, was granted on 5 June 1902. In 1903, the patent was bought by Desiderio Pavoni, who founded the La Pavoni company and began to produce the machine industrially, manufacturing one machine daily in a small workshop in Via Parini, Milan.[25]A detailed discussion of the spread of espresso is given in (Morris 2007). In Italy, the rise of espresso consumption was associated with industrialization and urbanization, notably in Turin, Genoa, and Milan, in northwest Italy. Italians also spread espresso culture into their East African colonies, Italian Somalia and Italian Eritrea.[26]The third-wave coffee movement encompasses espresso machines as a broader coffee culture that values relationships with growers and importers and the craftsmanship involved in making specific coffee-based drinks. The mention of brands such as Synesso, La Marzocco, and Slayer, known for their top-notch equipment, highlights the differences between traditional espresso machines and super-automatic machines to achieve a complete coffee preparation.[27]Espresso is generally thicker than coffee brewed by other methods, with a viscosity similar to that of warm honey. This is due to the higher concentration of suspended and dissolved solids and the crema on top (a foam with a creamy consistency).[28] As a result of the pressurized brewing process, the flavors and chemicals in a typical cup of espresso are very concentrated.Espresso contains more caffeine per unit volume than most coffee beverages, but as its usual serving size of 2530 ml (1 US oz) is much smaller than other coffee drinks, the overall caffeine content of a single "serving" of espresso is generally lower than that of other coffees.[29] While the exact caffeine content of any coffee drink will vary, a typical 30 millilitres (1 US fluid ounce) serving of espresso contains approximately 65 milligrams of caffeine, but a typical 240 millilitres (8 US fluid ounces) serving of drip coffee contains 150200mg of caffeine.[30][31][32]The three dispersed phases in espresso are what make the beverage unique. The first dispersed phase is an emulsion of oil droplets. The second phase is suspended solids, while the third is the layer of gas bubbles or foam. The dispersion of very small oil droplets is perceived in the mouth as creamy. This characteristic of espresso contributes to what is known as the body of the beverage. These oil droplets preserve some of the aromatic compounds that are lost to the air in other coffee forms, enhancing the strong flavor of espresso.[33]The crema is a layer of dense foam that forms on top of the drink.[34][35] It consists of emulsified oils in the ground coffee turned into a colloid, which does not occur in other brewing methods. Crema is produced when water placed under very high pressure dissolves more carbon dioxide, a gas present inside the coffee that is produced during the roasting process.[36]:96Espresso is served on its own, and is also used as the base for various other coffee drinks, including caff latte, cappuccino, caff macchiato, caff mocha, flat white, and americano.Espresso brewingFinely ground coffee for espressoEspresso is made by forcing very hot water under high pressure through finely ground compacted coffee. There is no universal standard defining the process of extracting espresso,[37] but several published definitions attempt to constrain the amount and type of ground coffee used, the temperature and pressure of the water, and the rate of extraction.[38][39] Generally, one uses an espresso machine to make espresso.The act of producing a shot of espresso is often called "pulling" a shot, originating from lever espresso machines, with which a barista pulls down a handle attached to a spring-loaded piston, which forces hot water through the coffee at high pressure. However, it is more common for an electric pump to generate the pressure.[40]Tamping down the coffee promotes the water's even penetration through the grounds.[41] This process produces a thicker beverage by extracting both solid and dissolved components.The technical parameters outlined by the Italian Espresso National Institute for making a "certified Italian espresso" are:[42]ParameterValueNecessary portion of ground coffee7 g 0,5Exit temperature of water from unit88C 2CTemperature in cup67C 3CEntry water pressure9 bar 1Percolation time25 5 secondsViscosity at 45C> 1,5 mPa sTotal fat> 2mg/mlCaffeine< 100mg/cupVolume in cup (including crema)25 ml 2,5Any bean or roasting level can be used to produce authentic espresso. For example, in southern Italy, a darker roast is generally preferred. Farther north, the trend moves toward slightly lighter roasts, while outside Italy a wide range is popular.[43]See also: Doppio, Ristretto, and LungoExtracting a doppioA double ristretto with the first half of the shot in the glass at the bottom of the image, and the second half in the glass on the rightThe main variables in a shot of espresso are the "size" and "length".[44][45] This terminology is standardized, but the precise sizes and proportions vary substantially.Cafs may have a standardized shot (size and length), such as "triple ristretto",[45] only varying the number of shots in espresso-based drinks such as lattes, but not changing the extraction. Changing between a double and a triple requires changing the filter basket size, while changing between ristretto, normale, and lungo may require changing the grind.[citation needed]The size can be a single, double, or triple, using a proportional amount of ground coffee, roughly 7, 14, and 21grams; correspondingly sized filter baskets are used. The Italian multiplier term doppio is often used for a double, with solo and triplo being more rarely used for singles and triples. The single shot is the traditional shot size, being the maximum that could easily be pulled on a lever machine. Single baskets are sharply tapered or stepped down in diameter to provide comparable depth to the double baskets and, therefore, comparable resistance to water pressure. Most double baskets are gently tapered (the "Faema model"), while others, such as the La Marzocco, have straight sides. Triple baskets are normally straight-sided. Portafilters will often come with two spouts, usually closely spaced, and a double-size basket. Each spout can optionally dispense into a separate cup, yielding two solo-size (but doppio-brewed) shots, or into a single cup (hence the close spacing). True solo shots are rare, with a single shot in a caf generally being half of a doppio shot. In espresso-based drinks in America, particularly larger milk-based drinks, a drink with three or four shots of espresso will be called "triple" or "quad", respectively.The length of the shot can be ristretto (or stretto) (reduced), normale or standard (normal), or lungo (long):[46] these may correspond to a smaller or larger drink with the same amount of ground coffee and same level of extraction or to different length of extraction. Proportions vary, and the volume (and low density) of crema makes volume-based comparisons difficult (precise measurement uses the mass of the drink). Typically, ristretto is half the volume of normale, and lungo is double to triple the normale volume. For a double shot (14 grams of dry coffee), a normale uses about 60 ml of water. A double ristretto, a common form associated with espresso, uses half the amount of water, about 30 ml. Ristretto, normale, and lungo may not simply be the same shot stopped at different times (which could result in an under- or over-extracted shot), but have the grind adjusted (finer for ristretto, coarser for lungo) to achieve the target volume.[36]:103 A significantly longer shot is the caff crema, which is longer than a lungo, ranging in size from 120240ml (4.28.4impfloz; 4.18.1USfloz), and brewed in the same way, with a coarser grind. Passing too much water through the ground coffee can add other, potentially unpleasant flavors to the espresso.[36]:99Main article: Espresso machineA manual Italian handmade espresso machineAn automatic Italian handmade espresso machineHome espresso machines have increased in popularity with the general rise of interest in espresso. Today, a wide range of home espresso equipment can be found in kitchen and appliance stores, online vendors, and department stores. The first espresso machine for home use was the Gaggia Gilda.[47] Soon afterwards, similar machines such as the Faema Faemina, FE-AR La Peppina, and VAM Caravel followed suit, with similar form factors and operational principles.[48]These machines still have a small but dedicated share of fans. Until the advent of the first small electrical pump-based espresso machines, such as the Gaggia Baby and Quickmill 810, home espresso machines were not widely adopted. In recent years, the increased availability of convenient countertop fully automatic home espresso makers and pod-based espresso serving systems has increased the quantity of espresso consumed at home. The popularity of home espresso making parallels the increase of home coffee roasting. Some amateurs pursue both home roasting coffee and making espresso.In a 100 ml (grams, 3.5 oz) reference amount, espresso has significant levels of dietary mineral, magnesium, B vitamins, niacin, and riboflavin, and around 212mg of caffeine per 100 grams of liquid brewed coffee (table).[49]Main article: List of coffee drinks EspressoIn addition to being served alone, espresso is frequently blended, notably with milk, either steamed (without significant foam), wet foamed (microfoam) and dry foamed, or with hot water.[50]TypeDrink volumeNotesEspresso2530ml (0.851.01USfloz)The basic drink from which other milk and non-milk coffee drinks are based.Ristretto20ml (0.68USfloz)Condensed espresso to approximately 20 ml.Macchiato3040ml (1.01.4USfloz)Macchiato means 'spot' or 'stain' in Italian. According to the classic Italian method, a spoonful of milk foam is added to the espresso, according to the modern method, it is filled to the edge of the cup with microfoam.Lungo60ml (2.0USfloz)Espresso pulled with double the amount of water.Americano150180ml (5.16.1USfloz)Espresso topped up with hot water in a ratio of 1:5.Long black150180ml (5.16.1USfloz)Similar to an americano, but on the contrary, the espresso is poured into the hot water.[51]Cappuccino150180ml (5.16.1USfloz)It is prepared as an espresso with a large amount of milk and milk foam. Latte art technique is often painted into the drink.Caff latte250280ml (8.59.5USfloz)At least 210 g of lightly whipped milk with foam at a temperature of 5870C is poured into the espresso.Latte macchiato250ml (8.5USfloz)Milk and milk foam are poured into a tall glass, which is left to stand for at least half a minute, then one shot of espresso is poured into it, creating three colored layers.RistrettoMacchiatoLungoAmericanoLong blackCappuccinoPreparation of caff latteLatte macchiatoOther variants:Caff crema: "long" espresso from more water and coarser ground coffee, approximately 120180 mlEspresso con panna: espresso with creamViennese coffee: 2 shots of espresso with whipped creamCaff mocha: caff latte with chocolateEspresso martini: espresso with coffee liqueur and vodkaCaff corretto ('corrected coffee'): espresso with brandy, grappa, or sambucaFreddo espresso: espresso is mixed with the sugar and ice in a drink mixerEspresso and tonicItaly portalDrink portalCoffee portalList of coffee drinksCaffeinated drink type of drinkCaff macchiatoDoppioLungoRistretto^ United States Food and Drug Administration (2024). 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"The Cappuccino Conquests: The Transnational History of Italian Coffee". Academia.org. University of Hertfordshire.Davids, Kenneth (2013). Coffee: A Guide to Buying, Brewing, and Enjoying (5ed.). St. Martin's Press. ISBN978-1466854420.Fumagalli, Ambrogio (1995). Coffee Makers. Chronicle Books. ISBN0-8118-1082-8.Schomer, David C. Espresso Coffee: Professional Techniques. 1996. Media related to Espresso at Wikimedia Commons The dictionary definition of espresso at WiktionaryRetrieved from " to contentEspresso is the heart of many coffee lovers mornings, but understanding what it truly is can be a challenge. With so many types of coffee and brewing methods, its easy to be confused about what sets espresso apart and how it fits into the broader coffee landscape. Espresso is a concentrated coffee brewed by forcing hot water through finely ground coffee beans under high pressure, creating a rich, bold shot with a signature crema.Ever wondered why espresso holds such a revered place in coffee culture and how it compares to your regular coffee? In this guide, well demystify the art of espresso, uncovering its origins, brewing techniques, and how it stands out from other coffee types. Youll gain insights into its preparation process, explore various espresso-based drinks, and get tips on brewing the perfect shot at home. Whether youre a seasoned barista or a curious novice, this article will equip you with all you need to know about the essence of espresso.Key Facts: Espresso originated in Italy in the early 20th century Its brewed using high pressure (typically 9 bars) and finely ground coffee A standard espresso shot is about 1 ounce (30 milliliters) Espresso forms the base for many popular coffee drinks like cappuccinos and lattes Despite its strong taste, a shot of espresso often contains less caffeine than a regular cup of coffeeThe Origin and History of EspressoHistorical Timeline of Espresso sourceThe origin and history of espresso is a fascinating journey that begins in the early 20th century Italy. This concentrated coffee beverage, now beloved worldwide, has its roots in the innovative spirit of Italian inventors and the countrys rich coffee culture.The Invention of Espresso: Luigi Bezzeras ContributionLuigi Bezzera, an Italian inventor, is widely credited with creating the first espresso machine in 1901. Bezzeras groundbreaking invention was born out of a desire to reduce coffee brewing time for workers. His machine used steam and pressure to force hot water through finely ground coffee beans, producing a concentrated shot of coffee in mere seconds.Key innovation: Bezzeras machine was the first to use pressure to brew coffee, a fundamental principle that remains at the heart of espresso making today.The name espresso itself comes from the Italian word meaning expressed or forced out, which perfectly describes the brewing process. Bezzeras invention was not just about speed; it also produced a unique, intense coffee with a layer of crema on top characteristics that define espresso to this day.Following Bezzeras invention, the espresso machine underwent several significant improvements:1905: Desiderio Pavoni acquired Bezzeras patent and began producing espresso machines commercially.1920s: The introduction of the spring piston lever machine by Achille Gaggia, which allowed for higher pressure and produced the now-iconic crema.1961: The development of the pump-driven espresso machine by Ernesto Valente, founder of Faema, which allowed for consistent pressure throughout the extraction process.These advancements refined the espresso-making process, improving the quality and consistency of the brew. Each iteration brought espresso closer to the beverage we know and love today.Espresso quickly became an integral part of Italian culture, with espresso bars popping up across the country. These bars served as social hubs, where Italians would gather for a quick shot of espresso and conversation.The cultural significance of espresso in Italy cannot be overstated. It became a symbol of Italian lifestyle, associated with quick breaks during the workday and social gatherings. The ritual of drinking espresso standing at the bar became a uniquely Italian custom.As Italian immigrants spread across the globe, they brought their love for espresso with them. This diaspora played a crucial role in introducing espresso to other countries, particularly the United States.Several key milestones marked espressos journey from a local Italian invention to a global phenomenon:1906: The first espresso machine was displayed at the Milan Fair, capturing public attention.1950s: The rise of Italian-style coffee bars in the UK, particularly in Londons Soho district.1980s: The emergence of specialty coffee shops in the US, with espresso-based drinks at their core.1990s-2000s: The global expansion of coffee chains like Starbucks, popularizing espresso-based drinks worldwide.Today, espresso has evolved far beyond its Italian origins. Its the foundation of a global coffee culture, inspiring countless variations and brewing methods. From the streets of Milan to the cafes of Seattle and beyond, espresso continues to captivate coffee lovers with its rich history and bold flavor.Espresso coffee is a concentrated form of coffee thats brewed by forcing hot water under high pressure through finely-ground coffee beans. This unique brewing method results in a small, intense shot of coffee with a distinctive layer of crema on top.A freshly brewed espresso shot with rich crema sourceDefinition and Characteristics of EspressoEspresso is defined by its brewing method and resulting characteristics:Brewing Method: Hot water (90-96C / 194-205F) is forced through finely ground coffee at high pressure (typically 9 bars).Serving Size: A standard espresso shot is about 1 ounce (30 ml).Preparation Time: It takes about 25-30 seconds to brew.Consistency: Thick and syrupy, with a layer of crema on top.Flavor Profile: Intense, concentrated coffee flavor with a balance of bitterness, acidity, and sweetness.The defining feature of espresso is its crema the golden-brown foam that forms on top of the shot. This crema is created by the emulsification of oils in the coffee and is a sign of a well-pulled shot.How Espresso Differs from Other Coffee TypesEspresso stands apart from other coffee types in several key ways:Concentration: Espresso is much more concentrated than drip coffee or French press coffee.Brewing Time: While drip coffee might take several minutes to brew, espresso is ready in under 30 seconds.Pressure: Espresso uses high pressure in brewing, unlike most other methods.Grind Size: Espresso requires a much finer grind than other brewing methods.Serving Style: Served in small shots rather than large cups.These differences result in a unique coffee experience thats distinctly different from a regular cup of joe. The high pressure and quick extraction time create a complex flavor profile thats hard to replicate with other brewing methods.The Unique Flavor Profile of EspressoEspresso boasts a rich and complex flavor profile that sets it apart from other coffee preparations. Its taste is often described as:Intense: The concentrated nature of espresso results in a bold, powerful flavor.Balanced: A good espresso should have a harmonious blend of bitterness, acidity, and sweetness.Complex: Notes can range from chocolate and nuts to fruits and floral hints, depending on the bean origin and roast.Full-bodied: The high pressure extraction creates a thick, almost syrupy mouthfeel.The flavor of espresso is so distinctive that it forms the base for many popular coffee drinks. When mixed with steamed milk, it creates the foundation for lattes, cappuccinos, and many other beloved coffee beverages.Crema: The Signature Layer of EspressoCrema is the hallmark of a well-pulled espresso shot. This thin, golden-brown layer on top of the espresso is created during the brewing process:Formation: As hot water is forced through the coffee grounds, it emulsifies the natural oils in the coffee.Composition: Crema is made up of tiny bubbles containing aromatic compounds and CO_2.Significance: Its often considered an indicator of the espressos quality and freshness.While the importance of crema is sometimes debated among coffee aficionados, its presence is undeniably part of the classic espresso experience. It adds to the visual appeal of the drink and contributes to the overall flavor and aroma.Common Myths and Misconceptions About EspressoDespite its popularity, espresso is surrounded by several myths:Myth: Espresso has more caffeine than regular coffee.Reality: Per serving, espresso often has less caffeine due to its smaller size.Myth: Espresso is a specific type of coffee bean.Reality: Any coffee bean can be used to make espresso; its the brewing method that defines it.Myth: Espresso is always served hot.Reality: While typically served hot, espresso can be used in cold drinks like iced lattes.Myth: Crema is always a sign of good espresso.Reality: While crema is important, its not the sole indicator of quality. Freshly roasted beans can produce excessive crema that masks flavor issues.Myth: Espresso is only for experienced coffee drinkers.Reality: Anyone can enjoy espresso, and its the base for many popular, approachable drinks.Understanding these misconceptions can help coffee lovers appreciate the true nature of espresso and enjoy it to its fullest potential.The Espresso Brewing ProcessThe espresso brewing process is a delicate balance of science and art, requiring precision, skill, and the right equipment. Lets dive into the intricacies of creating the perfect shot of espresso.The Science Behind Espresso: Pressure and ExtractionThe science of espresso brewing revolves around two key factors: pressure and extraction.Pressure: Espresso machines typically use 9 bars of pressure (about 130 psi) to force hot water through the coffee grounds. This high pressure is crucial for: Extracting a wide range of flavors and oils from the coffee Creating the signature crema on top of the espresso Achieving the rapid brewing time characteristic of espressoExtraction: This refers to the process of dissolving flavor compounds from the coffee grounds into the water. In espresso, extraction happens very quickly due to the high pressure and temperature. The goal is to achieve a balanced extraction, where: Underextraction (too fast) results in sour, weak espresso Overextraction (too slow) leads to bitter, harsh flavorsThe ideal extraction time for espresso is typically between 25-30 seconds, yielding about 1 ounce (30ml) of liquid.Water temperature and pressure are critical variables in espresso brewing:Temperature: The ideal water temperature for espresso is between 90-96C (194-205F). This range is crucial because: Too hot: Can lead to bitter, over-extracted coffee Too cool: May result in sour, under-extracted espressoMany high-end espresso machines allow for precise temperature control, known as PID (Proportional-Integral-Derivative) control.Pressure: The standard 9 bars of pressure is not arbitrary. Its been found to be the optimal pressure for: Extracting desirable flavor compounds Creating the right balance of oils and dissolved solids Producing the characteristic cremaSome advanced machines allow for pressure profiling, varying the pressure during the extraction for more nuanced flavors.Espresso Machines: Manual vs. Semi-Automatic vs. AutomaticEspresso machines come in three main types, each offering different levels of control and automation:Manual Machines:Require the barista to control all aspects of the brewing processOffer the most control but require the most skillExamples include lever machines like the La Pavoni ProfessionalSemi-Automatic Machines:Automate the pressure and temperature controlBarista controls when to start and stop the shotMost common in specialty coffee shopsExamples include the Rancilio Silvia or Gaggia Classic ProAutomatic Machines:Control all aspects of the brewing processOften have programmable shot timesIdeal for consistency in high-volume settingsExamples include the La Marzocco Linea PB or Nuova Simonelli Aurelia IIEach type has its pros and cons, and the choice often depends on the users skill level, desire for control, and the setting (home, caf, etc.).The Role of Coffee Bean Grind Size in Espresso PreparationThe grind size of the coffee beans plays a crucial role in espresso preparation:Fineness: Espresso requires a very fine grind, almost powder-like in consistency.Uniformity: The grind should be uniform to ensure even extraction.Adjustment: Grind size often needs to be adjusted based on factors like humidity, bean age, and desired flavor profile.The grind size affects the resistance to water flow during extraction. Too coarse, and the water flows too quickly, resulting in under-extraction. Too fine, and the water struggles to pass through, leading to over-extraction.A high-quality burr grinder is essential for achieving the right grind for espresso. Blade grinders typically cant produce the consistency and fineness required.Tamping is the process of compressing the ground coffee in the portafilter. Its a crucial step that affects the quality of the espresso shot:Importance of Tamping: Creates resistance for the water to pass through evenly Ensures uniform extraction across the entire puck of coffee Prevents channeling, where water finds paths of least resistanceTamping Technique:1. Distribute the grounds evenly in the portafilter2. Apply about 30 pounds of pressure (though this can vary)3. Ensure the tamp is level to prevent uneven extractionCommon Tamping Mistakes: Inconsistent pressure leading to uneven extraction Tilted tamp causing channeling Over-tamping, which can lead to over-extractionMastering the art of tamping takes practice but is essential for pulling consistent, high-quality espresso shots.Equipment Needed for Brewing EspressoBrewing the perfect espresso requires more than just beans and water. It demands a set of specialized equipment designed to extract the rich flavors and aromas that make espresso unique. Lets explore the essential tools youll need to create caf-quality espresso at home.To brew espresso, youll need the following key pieces of equipment:Espresso Machine: The heart of your setup, responsible for heating water and applying pressure.Grinder: Essential for achieving the fine, consistent grind needed for espresso.Tamper: Used to compress the ground coffee in the portafilter.Portafilter: Holds the ground coffee and attaches to the espresso machine.Scale: For precise measurement of coffee grounds and espresso yield.Milk Frother (optional): For creating steamed milk for lattes and cappuccinos.Each of these tools plays a crucial role in the espresso-making process, and investing in quality equipment can significantly improve your results.Espresso machines come in various types, each with its own set of features:Manual Lever Machines:Offer complete control over the brewing processRequire skill and practice to use effectivelyExample: La Pavoni ProfessionalSemi-Automatic Machines:Most common for home useAutomate pressure and temperature, but allow control over shot timingExample: Rancilio SilviaAutomatic Machines:Fully automated brewing processIdeal for consistency and ease of useExample: Breville Barista ExpressSuper-Automatic Machines:All-in-one systems that grind, tamp, and brewOffer convenience at the expense of controlExample: Jura E8Key features to look for in an espresso machine include: Pressure: Ideally 9 bars for optimal extraction Temperature stability: Crucial for consistent shots Steam wand: For milk-based drinks PID control: For precise temperature management Pre-infusion: Helps achieve even extractionThe grinder is perhaps the most crucial piece of equipment after the espresso machine itself. There are two main types:Burr Grinders: Crush beans between two burrs for consistent grind size Offer adjustable grind settings Produce less heat, preserving bean flavor Essential for quality espresso Examples: Baratza Sette 270, Eureka Mignon SpecialitaBlade Grinders: Use spinning blades to chop beans Produce inconsistent grind sizes Generate heat that can affect flavor Not recommended for espressoWhy burr grinders are superior for espresso:1. Consistency: Even particle size for uniform extraction2. Adjustability: Fine-tune grind size for optimal flow rate3. Less heat: Preserves volatile compounds in coffeeInvesting in a quality burr grinder can dramatically improve your espresso quality.Importance of a Quality TamperA tamper is used to compress the ground coffee in the portafilter, ensuring even water distribution during extraction. Key considerations for tampers include:Size: Must match your portafilter diameter preciselyWeight: Heavier tampers can help achieve consistent pressureMaterial: Stainless steel or aluminum for durabilityErgonomics: Comfortable handle for ease of useProper tamping technique is crucial:1. Distribute grounds evenly in the portafilter2. Apply about 30 pounds of pressure3. Ensure the tamp is level to prevent channelingA quality tamper, combined with good technique, helps achieve consistent, well-extracted espresso shots.While not strictly necessary for espresso, these tools can enhance your coffee-making experience:Milk Frothers: Essential for cappuccinos, lattes, and other milk-based drinks Types include steam wands (on espresso machines), handheld frothers, and standalone electric frothers Look for ones that can create microfoam for latte artScales: Crucial for consistency in dosing and yield Look for scales with 0.1g precision Some offer built-in timers for tracking shot duration Example: Acaia LunarThermometers: Useful for monitoring milk temperature when steaming Some are designed to clip onto milk pitchers Ideal temperature range for milk is 60-65C (140-150F)Knock Box: For disposing of used coffee grounds Helps keep your workspace cleanCleaning Tools: Brushes, cleaning tablets, and backflushing discs for maintaining your equipmentEach of these tools plays a role in creating consistently great espresso and espresso-based drinks. While you dont need every gadget to start, gradually adding these tools to your setup can help you achieve caf-quality results at home.Espresso vs. Regular CoffeeEspresso and regular coffee, while both derived from coffee beans, are distinctly different beverages. Understanding these differences can help you appreciate the unique qualities of each and choose the right brew for your taste and occasion.Differences in Brewing Methods: Drip vs. EspressoThe primary distinction between espresso and regular coffee lies in their brewing methods:Espresso Brewing: Uses high pressure (typically 9 bars) Requires finely ground coffee Extraction time: 25-30 seconds Yields a small, concentrated shot (1-2 oz)Drip Coffee Brewing: Uses gravity to pull water through grounds Coarser grind than espresso Brewing time: 3-5 minutes Yields a larger volume of coffee (6-8 oz per cup)These different methods result in distinct flavor profiles, strengths, and textures.Contrary to popular belief, espresso doesnt necessarily contain more caffeine than regular coffee when compared by serving size:Espresso: Average caffeine content: 63 mg per 1 oz shot Concentrated dose due to small serving sizeRegular Coffee: Average caffeine content: 12-16 mg per oz Typical 8 oz cup contains 95-128 mg of caffeineWhile espresso has a higher concentration of caffeine, the larger serving size of regular coffee often results in a higher total caffeine intake per cup. However, caffeine content can vary based on factors like bean type, roast level, and brewing method.Texture and Consistency: Thick Espresso vs. Smooth CoffeeThe brewing method significantly impacts the texture and consistency of the final product:Espresso: Thick, almost syrupy consistency Topped with a layer of crema (emulsified oils) Rich mouthfeel due to dissolved solids and oilsRegular Coffee: Thinner, more watery consistency No crema layer Smoother mouthfeel, especially when using paper filtersThe pressure used in espresso extraction creates a unique texture thats hard to replicate with other brewing methods.How Bean Selection Affects Both Espresso and CoffeeWhile any coffee bean can be used for both espresso and regular coffee, certain characteristics are often preferred for each:Espresso Beans: Often darker roasts to minimize acidity Blends are common to achieve balance and complexity Oily beans can clog grinders, so medium-dark roasts are popularRegular Coffee Beans: Wide range of roasts used, from light to dark Single-origin beans are popular for showcasing unique flavors Lighter roasts often preferred to highlight bean characteristicsThe intense extraction process of espresso can amplify both positive and negative bean characteristics, making bean selection crucial for a balanced shot.The flavor profiles of espresso and regular coffee can differ significantly:Espresso: Intense, concentrated flavor Complex with notes of chocolate, nuts, caramel Can have a slight bitterness balanced by sweetness Aftertaste lingers due to oils and dissolved solidsRegular Coffee: Milder, more subtle flavors Can range from bright and acidic to rich and bold Flavors develop as the coffee cools Cleaner finish, especially with paper-filtered methodsThese flavor differences make espresso and regular coffee suitable for different occasions and preferences. Espressos intensity makes it a popular base for milk drinks, while regular coffee is often enjoyed on its own or with minimal additions.Types of Espresso DrinksEspresso forms the foundation for a wide array of popular coffee drinks. Each variation combines espresso with different amounts of milk, foam, or water to create unique flavors and textures. Lets explore some of the most beloved espresso-based beverages.Popular Espresso-Based Drinks sourceCaff Latte: Espresso with Steamed MilkThe caff latte, often simply called a latte, is one of the most popular espresso drinks worldwide.Composition: 1-2 shots of espresso 6-8 oz of steamed milk Thin layer of milk foam on topCharacteristics: Mild, creamy flavor with subtle espresso notes Smooth texture due to the high proportion of steamed milk Often served with latte art on topVariations: Flavored lattes with syrups like vanilla or caramel Iced lattes for a refreshing summer drinkLattes are beloved for their approachable flavor and creamy texture, making them a popular choice for those new to espresso drinks.Cappuccino: Balancing Espresso, Milk, and FoamThe cappuccino is a classic Italian coffee drink known for its perfect balance of espresso, steamed milk, and milk foam.Composition: 1-2 shots of espresso Equal parts steamed milk and milk foamCharacteristics: Stronger espresso flavor than a latte Luxurious, velvety texture from the milk foam Traditionally served in a 5-6 oz cupVariations: Dry cappuccino: More foam, less steamed milk Wet cappuccino: More steamed milk, less foam Iced cappuccino: Cold milk and foam over espresso and iceThe cappuccinos balanced ratio of espresso to milk makes it a favorite among those who enjoy a bolder coffee flavor without the intensity of straight espresso.The macchiato, which means stained or spotted in Italian, is a simple yet flavorful espresso drink.Composition: 1 shot of espresso A small amount of steamed milk (about 1-2 teaspoons)Characteristics: Strong espresso flavor with a hint of milk Less milk than a cappuccino or latte Often served in a small glass or demitasse cupVariations: Latte macchiato: Reversed preparation with milk stained by espresso Caramel macchiato: A sweetened variation popular in chain coffee shopsThe macchiato is perfect for those who enjoy the bold flavor of espresso but want to soften it slightly with a touch of milk.Americano: Diluting Espresso with Hot WaterThe Americano is a simple yet popular drink that combines espresso with hot water.Composition: 1-2 shots of espresso 3-4 oz of hot waterCharacteristics: Similar strength to drip coffee but with espresso flavors Smoother than straight espresso Can be served hot or over ice (Iced Americano)Variations: Long Black: Similar to Americano but with reversed preparation order Red Eye: Americano with a shot of drip coffee addedAmericanos are popular among those who enjoy the flavor of espresso but prefer a larger, less intense drink.Other Popular Variations: Ristretto, Lungo, and Flat WhiteRistretto: A restricted shot of espresso Uses less water, resulting in a more concentrated, sweeter shot Typically about 0.75 oz in volumeLungo: An extended shot of espresso Uses more water, resulting in a larger, more diluted shot Typically about 1.5 oz in volumeFlat White: Originated in Australia/New Zealand Similar to a latte but with less milk and a higher coffee-to-milk ratio Typically served in a smaller cup (5-6 oz) than a latte Known for its velvety microfoam and strong coffee flavorEach of these variations offers a unique espresso experience, catering to different preferences in strength, volume, and milk content.Understanding these different espresso drinks allows coffee lovers to explore the versatility of espresso and find their perfect cup. Whether you prefer the bold simplicity of a macchiato or the creamy indulgence of a latte, theres an espresso drink for every palate.Creating caf-quality espresso at home can be a rewarding experience. With the right equipment, technique, and a bit of practice, you can enjoy delicious espresso drinks without leaving your kitchen. Heres a comprehensive guide to brewing espresso at home.Choosing the Right Espresso Machine for Home UseSelecting the right espresso machine is crucial for your home brewing success. Consider these factors:Budget: Espresso machines range from under $100 to several thousand dollars.Skill Level: Manual machines require more skill, while super-automatics do most of the work for you.Space: Consider the machines footprint in your kitchen.Features: PID temperature control, pressure gauges, and built-in grinders can enhance your brewing experience.Popular home espresso machine types include:Semi-Automatic: Offers a good balance of control and convenience. Examples: Gaggia Classic Pro, Rancilio Silvia.Automatic: Provides consistent results with less manual input. Examples: Breville Barista Express, Delonghi La Specialista.Super-Automatic: Grinds, tamps, and brews at the push of a button. Examples: Jura E8, Philips 3200 Series.Remember, a good grinder is just as important as the espresso machine itself. If your budget allows, consider a separate burr grinder for optimal results.Selecting High-Quality Coffee Beans for EspressoThe quality of your espresso starts with the beans. Heres what to look for:Freshness: Look for beans with a recent roast date, ideally within the last 2-3 weeks.Roast Level: Medium to dark roasts are traditional for espresso, but experiment to find your preference.Bean Origin: Single-origin beans can offer unique flavors, while blends often provide balanced, consistent results.Processing Method: Different processing methods (washed, natural, honey) can affect flavor profiles.Popular espresso beans include: Italian-style blends for

traditional flavors Brazilian beans for nutty, chocolatey notes Ethiopian beans for fruity, floral characteristicsExperiment with different beans to find the flavors you enjoy most in your espresso.Proper grinding and storage are crucial for maintaining bean freshness and flavor:Grinding: Grind just before brewing for maximum freshness Adjust grind size to achieve the ideal extraction (25-30 seconds for a 1 oz shot) Start with a fine, powdery grind and adjust as neededStoring: Keep beans in an airtight container away from light, heat, and moisture Store at room temperature, not in the refrigerator or freezer Buy smaller quantities more frequently to ensure freshnessA consistent, fine grind is essential for even extraction and a quality espresso shot.Step-by-Step Guide to Brewing Espresso at HomeFollow these steps to brew espresso at home:Warm up the machine: Turn on your espresso machine and allow it to heat up (usually 15-30 minutes).Grind the beans: Grind 18-20 grams of coffee for a double shot.Dose the portafilter: Distribute the grounds evenly in the portafilter.Tamp the grounds: Apply even pressure (about 30 pounds) to create a level puck.Insert the portafilter: Lock it into the group head.Start the shot: Begin extraction and time it.Monitor the extraction: Look for a steady stream that starts out dark and develops into a golden brown.Stop the shot: Aim for 25-30 seconds for a 1-2 oz double shot.Assess the shot: Check the crema, aroma, and taste.Remember, consistency is key. Keep your process the same each time, changing only one variable at a time to improve your results.Even experienced home baristas encounter issues. Here are some common problems and solutions:Sour taste:Problem: Under-extractionSolution: Grind finer, increase dose, or extend extraction timeBitter taste:Problem: Over-extractionSolution: Grind coarser, decrease dose, or shorten extraction timeWeak, watery shot:Problem: Under-extraction or too coarse grindSolution: Grind finer, increase dose, or tamp more firmlySlow, drippy extraction:Problem: Too fine grind or excessive tampingSolution: Grind coarser or tamp with less pressureFast, gushing extraction:Problem: Too coarse grind or insufficient tampingSolution: Grind finer or tamp more firmlyUneven extraction (channeling):Problem: Uneven distribution of grounds or tampingSolution: Distribute grounds more evenly and ensure level tampingNo crema:Problem: Old beans or incorrect grind sizeSolution: Use fresher beans or adjust grind sizeRemember, espresso brewing is a skill that improves with practice. Keep experimenting and adjusting your technique to achieve the perfect shot.Q: What is the difference between espresso and coffee?A: Espresso and coffee differ primarily in their brewing methods. Espresso is made by forcing hot water through finely-ground coffee beans under high pressure, resulting in a concentrated shot with a layer of crema. Regular coffee is typically brewed by allowing hot water to drip through coarser ground coffee. Espresso has a more intense flavor, thicker consistency, and is served in smaller quantities compared to regular coffee.Q: How much caffeine is in a shot of espresso compared to regular coffee?A: A typical shot of espresso (1 oz) contains about 63 mg of caffeine, while an 8 oz cup of regular drip coffee contains approximately 95 mg of caffeine. Although espresso has a higher concentration of caffeine per ounce, the smaller serving size means that a single shot of espresso generally contains less total caffeine than a standard cup of coffee.Q: What is crema and why is it important in espresso?A: Crema is the golden-brown foam that forms on top of a freshly brewed espresso shot. Its created by the emulsification of coffee oils and the release of CO_2 during the high-pressure extraction process. Crema is important because it contributes to the full-bodied texture of espresso, traps aromatic compounds, and is often considered a visual indicator of a well-pulled shot. However, its worth noting that while crema is characteristic of espresso, its presence alone doesnt guarantee quality.Q: Can you make espresso without an espresso machine?A: While true espresso requires the high pressure provided by an espresso machine, you can make espresso-like coffee at home using alternative methods. Devices like the Moka pot, AeroPress, or manual lever machines can produce strong, concentrated coffee similar to espresso. However, these methods typically cant generate the same level of pressure as an espresso machine, so the result wont have the same characteristics as traditional espresso, particularly the crema.Q: What are the best beans for making espresso?A: The best beans for espresso often depend on personal taste preferences. However, medium to dark roasts are traditionally favored for espresso as they tend to have lower acidity and more body. Many espresso blends combine beans from different origins to create a balanced flavor profile. Popular choices include Italian-style blends, Brazilian beans for nutty and chocolatey notes, or Ethiopian beans for fruity and floral characteristics. Ultimately, the best beans are those that produce flavors you enjoy in your espresso.SummaryEspresso, the concentrated coffee brewed by forcing hot water through finely-ground beans under high pressure, stands as a cornerstone of coffee culture worldwide. Throughout this exploration, weve uncovered the rich history of espresso, tracing its origins from Luigi Bezzeras innovative machine in early 20th century Italy to its global popularity today.Weve delved into the science behind espresso brewing, highlighting the crucial roles of pressure, temperature, and extraction in creating the perfect shot. The unique characteristics of espresso its intense flavor, thick consistency, and signature crema set it apart from regular coffee, making it the foundation for a variety of beloved drinks from lattes to cappuccinos.Our journey through the world of espresso equipment revealed the importance of quality tools, from the espresso machine itself to the often-overlooked grinder. Weve provided insights into selecting the right beans, mastering the art of tamping, and troubleshooting common brewing issues.As weve seen, making great espresso at home is both an art and a science. It requires patience, practice, and a willingness to experiment. But with the right knowledge and tools, crafting caf-quality espresso in your own kitchen is an achievable and rewarding endeavor.Whether youre a seasoned home barista or just beginning your espresso journey, remember that the perfect shot is a personal experience. Dont be afraid to adjust your technique, try new beans, or experiment with different drinks to find your ideal espresso experience. The world of espresso is rich and diverse, offering endless opportunities for exploration and enjoyment. So, pull up a shot, savor the crema, and continue your adventure in the fascinating world of espresso coffee.Tags# brewing methods# coffee basics If you're trying to win your argument, you've come to the wrong place. Espresso is the word borrowed from Italian to refer to coffee brewed by forcing hot water through finely ground usually darkly roasted coffee beans. In Italian this word was probably coined to mean "coffee made on the spot at the customer's request," to distinguish espresso from coffee brewed in a pot. In English we sometimes say that an individual serving of something, such as espresso, is made "expressly for" someone, and it so happens that express shares roots with espresso, making the widely used variant expresso both logical and etymologically defensible. At Merriam-Webster, we believe that coffee is the greatest invention in the world, perhaps short of the printing press. (The Internet loses a few points because of YouTube comments.) The energy boost provided by a well-timed cup of espresso is what gets our lexicographers through the livelong day. Only, it seems, not everybody agrees on how to spell it. Photo: Probuxtor Whatever you call it, it has to be Instagram-ready. What is Espresso? Espresso refers to coffee that is brewed by forcing steam or hot water through finely ground, usually darkly roasted coffee beans. In the past, the term has also variously referred to the machine used for preparing said coffee or to the establishment where this coffee is prepared and sold. In Italian, this coffee is known as caff espresso, or just espresso for short. Both terms were borrowed into English: They were the ones who had bought the silver caffe espresso urn and later the television, and they arranged the pizza parties and had the girls down ... Bernard Malamud, The Magic Barrel, 1958 And sometimes when I am walking down the King's Road or sipping my espresso in the morningfeeling, not old exactly, but fusty and adultand chance to remember the island, immediately all things are possible. Muriel Spark, Robinson, 1958 A Turin-born inventor, Angelo Moriondo, was awarded the patent for "new steam machinery for the economic and instantaneous confection of coffee beverage" in 1884, but the term espresso wasn't used until later, after the machine had been perfected by Luigi Bezzerra and Desiderio Pavoni. By the middle of the twentieth century, around the time a caf owner named Achille Gaggia patented the first modern espresso machine for commercial use (and the first that produced the crema that we associate with espresso today), the term espresso had made its way into English. Because of the similarity of espresso to the English word expressand the promise of coffee being prepared with relative swiftness in contrast to percolating devicesit naturally caught on for espresso to be interpreted as expresso, and consequently spelled as such. Espresso machines operated faster than percolators, delivering the coffee to the customer at a speed requiring less of a wait. Montreal night-life can be inexpensive or costly. If you care to budget severely there are coffee houses where a cup of expresso costs only 15 cents. Charles J. Lazarus, The New York Times, 27 Nov. 1955 Origins of Espresso and Expresso Expresso has been regarded as a misspelling by usage experts, who scoff at the deviation from the original Italian. Those experts are emboldened in their disapproval for the spelling by an early theory surrounding the word's etymology. The espresso in caff espresso, it was believed, pertained not to the "express" nature of brewing but to the fact that the coffee was "pressed out," espresso being cited as a past participle of esprimere, from Latin exprimere, meaning "to press or squeeze out." But, as it turns out, there's a problem with that reasoning. Exprimere does indeed mean, among other things, "to press or squeeze out" in Latin. It's also an ancestor of our word express, which has among its meanings "to force out (something, such as the juice of a fruit) by pressure"which accurately describes what takes place when espresso is made: hot water is forced through the grounds by way of steam pressure (approximately nine atmospheres' worth). But current etymological theory says that it's more likely that the Italian term caff espresso was coined to refer literally to coffee made on the spot at the customer's request, and not to point to the "pressing" method by which it's made. That has caused etymologists to rethink the connection of espresso to the pressing out of coffee beans and back toward the method of deliverycoffee made to order "expressly" for the customer. So does this mean we've been wrong about expresso all this time? Yes and no. Espresso remains the original borrowed word for the beverage, but expresso shows enough use in English to be entered in the dictionary and is not disqualified by the lack of an x in its Italian etymon. Just think of expresso as a quirky, jittery variant. Espresso is a concentrated form of coffee served in small, strong shots and is the base for many coffee drinks. It's made from the same beans as coffee but is stronger, thicker, and higher in caffeine. However, because espresso is typically served in smaller servings than coffee, it has less caffeine per serving.Origin: ItalyTemperature: 190FCaffeine: 29-100 mg per shotMain Ingredient: ground coffee beans Espresso (ess-PRESS-oh) is a full-flavored, concentrated form of coffee that is served in shots. It is made by forcing pressurized hot water through very finely ground coffee beans using an espresso machine. The result is a liquid stronger than coffee topped with a crema,a brown foam that forms when air bubbles combine with the soluble oils of fine-ground coffee and sits on top of a properly pulled shot of espresso.The crema adds to the rich flavor and lingering aftertaste of espresso. Espresso is made using the exact same plant as coffee, and is grown, processed, and roasted the same way. Any origin and roast coffee can be used to make espresso. The difference between coffee and espresso is in the grind and the treatment of the beans. The beans are ground to a finer consistency than coffee and firmly packed before hot water is forced through using an espresso machine. This results in a shot of espresso, which can be enjoyed as-is or used to make a long list of drinks including a cappuccino or Americano. Espresso has all of the same flavors of coffee but amplifiedbitter, lightly sweet, acidic, and toasty. The exact flavor profile will vary depending on the coffee roast. It has a thicker, creamier texture than coffee. The Spruce Eats / Catherine Song Espresso is especially loved in its home country of Italy, where it is frequently enjoyed plain, fresh out of the machine. Espresso shots are served in specially made espresso cups, called demitasse cups. The one-ounce shots are a quick and intense pick-me-up. Espresso can also be served as a two-ounce double shot. Some coffeehouses only serve double shots, or doppio, to help keep quality consistent. Espresso can also be made lungo or "long" using the same amount of coffee but twice the amount of water. Espresso is drunk throughout the day but is especially popular in the morning and after a meal. Though a serving of espresso is called a shot, it is not meant to be drunk in a single gulp. Instead, espresso is meant to be sipped slowly so you can take in its full, rich flavor. Most enjoy a shot or double shot of espresso as is, but sugar or another sweetener can be added. It is sometimes served with a sweet biscuit-like biscotti. Espresso is also used to make a number of popular coffeehouse drinks: Caff Americano:A shot of espresso combined with hot water.Red-eye:Filtered coffee combined with one shot of espresso.Caff latte: A double shot of espresso topped with steamed milk.Cappuccino: A single shot of espresso topped with steamed and frothed milk. While espresso has the reputation of being high in caffeine, it depends on how much you drink. Since the beverage tends to be served in smaller servings than coffee, it can sometimes have less caffeine than standard, brewed coffee. Double and triple shot drinks and mixed drinks like red-eyes can increase caffeine levels significantly. Espresso contains 29 to 100 milligrams of caffeine in a single shot, often hovering around 75 milligrams. A double shot has 58 to 185 mg. For comparison, a cup of drip coffee can contain 80 to 200 mg of caffeine depending on the variety and brew. Since espresso can be made with any coffee, the acidity in espresso will vary depending on the roast. Lighter roasts are more acidic since darker roasts tend to hide the bean's natural acidity. Many coffee shop espressos are a darker roast, making espresso slightly less acidic than some brewed coffee. The Spruce Eats / Catherine Song Look for fresh-roasted, whole, high-quality coffee beans for the best results. We recommend purchasing beans from your favorite local coffee shop or specialty grocer. Because espresso pulls the flavor out of the beans, find a quality bean and roast you like, and stay away from cheap supermarket brands. The same goes for ordering an espresso at a coffee shop. Choose an establishment that has well-trained baristas and fresh, top-notch coffee beans. Store whole beans or ground coffee in a thick, opaque, airtight container in a cool, dark place. Avoid placing your coffee in the fridge freezer, unless you plan to store the entire bag. Removing the coffee beans from the freezer to use them time and time again introduces moisture to the beans and sucks out their flavor. Keep them in the original packaging if your beans come in a thick, resealable foil bag with a valve. Once opened, use coffee beans within a week or two, if possible. For best results, grind the beans just before using them.EspressoEspresso ((listen), Italian: [esprsso]) is a coffee-brewing method of Italian origin, in which a small amount of nearly boiling water (about 90 C or 190 F) is forced under 910 bars (9001,000 kPa; 130150 psi) of pressure through finely-ground coffee beans. Espresso can be made with a wide variety of coffee beans and roast degrees. Espresso is the most common way of making coffee in southern Europe, especially in Italy, France, Spain, and Portugal. It is also popular in Switzerland, Croatia, Bosnia and Herzegovina, Bulgaria, Greece, South Africa, the United Kingdom, the United States, Canada, Brazil, Australia and New Zealand.Espresso is generally thicker than coffee brewed by other methods, with a viscosity similar to that of warm honey. This is due to the higher concentration of suspended and dissolved solids, and the crema on top (a foam with a creamy consistency). As a result of the pressurized brewing process, the flavors and chemicals in a typical cup of espresso are very concentrated. Espresso has more caffeine per unit volume than most coffee beverages, but because its usual serving size is much smaller than (for example) drip-brewed coffee, the caffeine content of a single serving of espresso is generally lower than that of a mug of drip coffee. The actual caffeine content of any coffee drink varies by size, bean origin, roast method and other factors, but a typical 28 grams (1 ounce) serving of espresso usually contains 64.5 milligrams of caffeine, whereas a typical serving of drip coffee usually contains 150 to 200 mg.The three dispersed phases in espresso are what make this beverage unique. The first dispersed phase is an emulsion of oil droplets. The second phase is suspended solids, while the third is the layer of gas bubbles or foam. The dispersion of very small oil droplets is perceived in the mouth as creamy. This characteristic of espresso contributes to what is known as the body of the beverage. These oil droplets preserve some of the aromatic compounds that are lost to the air in other coffee forms, enhancing the strong flavor of espresso.Espresso is served on its own, and is also used as the base for various other coffee drinks, including caff latte, cappuccino, caff macchiato, caff mocha, flat white, and caff Americano.Type of strong coffeeFor other uses, see Espresso (disambiguation).EspressoA cup of espresso in Ventimiglia, ItalyCountry of originItalyIntroduced1901ColorBrown, blackCoffee, brewed, espresso, restaurant-preparedNutritional value per 100g (3.5oz)Energy8.4kJ (2.0kcal)Carbohydrates0.Fat0.2Protein0.1Vitamins and mineralsVitaminsQuantity %DVRiboflavin (B2)15% 0.2 mgNiacin (B3)33% 5.2 mgMineralsQuantity %DVMagnesium19% 80 mgOther constituentsQuantityWater97.8 gTheobromine0 mgCaffeine212 mgLink to Full USDA Nutrient ReportPercentages estimated using USrecommendations for adults,[1] except for potassium, which is estimated based on expert recommendation from the National Academies[2]Espresso (/sprso/ , Italian: [esprsso]) is a concentrated form of coffee produced by forcing hot water under high pressure through finely ground coffee beans. Originating in Italy, espresso has become one of the most popular coffee-brewing methods worldwide. It is characterized by its small serving size, typically 2530 ml, and its distinctive layers: a dark body topped with a lighter-colored foam called "crema".Espresso machines use pressure to extract a highly concentrated coffee with a complex flavor profile in a short time, usually 2530 seconds. The result is a beverage with a higher concentration of suspended and dissolved solids than regular drip coffee, giving espresso its characteristic body and intensity.[3][4] While espresso contains more caffeine per unit volume than most coffee beverages, its typical serving size results in less caffeine per serving compared to larger drinks such as drip coffee.[5]Espresso serves as the base for other coffee drinks, including cappuccino, caff latte, and americano. It can be made with various types of coffee beans and roast levels, allowing for a wide range of flavors and strengths, despite the widespread myth that it is made with dark-roast coffee beans.[6] The quality of an espresso is influenced by factors such as the grind size, water temperature, pressure, and the barista's skill in tamping the coffee grounds.The cultural significance of espresso extends beyond its consumption, playing a central role in coffee shop culture and the third-wave coffee movement, which emphasizes artisanal production and high-quality beans.Some English dictionaries translate espresso as 'pressed-out',[7] but the word also conveys the senses of expressly for you and quickly:The words express, expres and espresso each have several meanings in English, French and Italian. The first meaning is to do with the idea of "expressing" ("pressing out of") or squeezing the flavour from the coffee using the pressure of the steam. The second meaning is to do with speed, as in a train. Finally there is the notion of doing something "expressly" for a person... The first Bezzera and Pavoni espresso machines in 1906 took 45 seconds to make a cup of coffee, one at a time, expressly for you.[8]Modern espresso, using hot water under pressure, as pioneered by Gaggia in the 1940s, was originally called crema caff (lit.'cream coffee'), as seen on old Gaggia machines, due to the crema.[9]The spelling espresso is mostly considered incorrect, although some sources call it a less common variant.[10] It is common in French and Portuguese. Italy uses the term espresso, substituting s for most x letters in Latin-root words, with the term deriving from the past participle of the Italian verb esprimere, itself derived from the Latin exprimere, which means 'to express', and refers to the process by which hot water is forced under pressure through ground coffee;[11][12] x is not considered part of the standard Italian alphabet. Italians commonly refer to espresso simply as caff (lit.'coffee'), espresso being the ordinary coffee to order. The same happens in Portugal (caf), with some regional variations (bica in Lisbon and cimbalino traditionally in Porto). In Spain, while caf expreso is seen as the more formal denomination, caf solo (alone, without milk) is the usual way to ask for it at an espresso bar. Some sources state that expresso is an incorrect spelling, including Garner's Modern American Usage.[13] While the 'expresso' spelling is recognized as mainstream usage in some American dictionaries,[14][15] some cooking websites call the 'x' variant illegitimate.[16][17][18] Oxford Dictionaries online states: "The spelling expresso is not used in the original Italian and is strictly incorrect, although it is common."[19] The Oxford English Dictionary and Merriam-Webster call it a variant spelling.[13] The Online Etymology Dictionary calls expresso a variant of espresso.[20] The Oxford Dictionary of American Usage and Style (2000) describes the spelling expresso as "wrong", and specifies espresso as the only correct form.[21] The third edition of Fowler's Modern English Usage, published by the Oxford University Press in 1996, noted that the form espresso "has entirely driven out the variant expresso (which was presumably invented under the impression that it meant 'fast, express')".[22]Angelo Moriondo, inventor of an important precursor of the espresso machineFirst patent (vol. 33 n. 256, 1884) for the espresso machine, by Angelo MoriondoAngelo Moriondo, from Turin, patented a steam-driven "instantaneous" coffee beverage making device in 1884 (No. 33/256). The device is "almost certainly the first Italian bar machine that controlled the supply of steam and water separately through the coffee" and Moriondo is "certainly one of the earliest discoverers of the expresso [sic] machine, if not the earliest". He was granted patent no. 33/256 dated 16 May 1884 (according to the "Bollettino delle privative industriali del Regno d'Italia", 2nd Series, Volume 15, Year 1884, pp. 635 655).[23][24] Unlike true espresso machines, it brewed in bulk, not as individual servings.Luigi Bezzera and one of the first espresso machines at the World Expo 1906 in Milan, ItalyBezzera Eagle 2 Coffee Maker, presented at Central Cafe BudapestSeventeen years later, in 1901, Luigi Bezzera, from Milan, devised and patented several improvements to the espresso machine, the first of which was applied for on 19 December 1901. Titled "Innovations in the machinery to prepare and immediately serve coffee beverage"; Patent No. 153/94, 61707, was granted on 5 June 1902. In 1903, the patent was bought by Desiderio Pavoni, who founded the La Pavoni company and began to produce the machine industrially, manufacturing one machine daily in a small workshop in Via Parini, Milan.[25]A detailed discussion of the spread of espresso is given in (Morris 2007). In Italy, the rise of espresso consumption was associated with industrialization and urbanization, notably in Turin, Genoa, and Milan, in northwest Italy. Italians also spread espresso culture into their East African colonies, Italian Somalia and Italian Eritrea.[26]The third-wave coffee movement encompasses espresso machines as a broader coffee culture that values relationships with growers and importers and the craftsmanship involved in making specific coffee-based drinks. The mention of brands such as Synesso, La Marzocco, and Slayer, known for their top-notch equipment, highlights the differences between traditional espresso machines and super-automatic machines to achieve a complete coffee preparation.[27]Espresso is generally thicker than coffee brewed by other methods, with a viscosity similar to that of warm honey. This is due to the higher concentration of suspended and dissolved solids and the crema on top (a foam with a creamy consistency).[28] As a result of the pressurized brewing process, the flavors and chemicals in a typical cup of espresso are very concentrated.Espresso contains more caffeine per unit volume than most coffee beverages, but as its usual serving size of 2530 ml (1 US oz) is much smaller than other coffee drinks, the overall caffeine content of a single "serving" of espresso is generally lower than that of other coffees.[29] While the exact caffeine content of any coffee drink will vary, a typical 30 millilitres (1 US fluid ounce) serving of espresso contains approximately 65 milligrams of caffeine, but a typical 240 millilitres (8 US fluid ounces) serving of drip coffee contains 150200mg of caffeine.[30][31][32]The three dispersed phases in espresso are what make the beverage unique. The first dispersed phase is an emulsion of oil droplets. The second phase is suspended solids, while the third is the layer of gas bubbles or foam. The dispersion of very small oil droplets is perceived in the mouth as creamy. This characteristic of espresso contributes to what is known as the body of the beverage. These oil droplets preserve some of the aromatic compounds that are lost to the air in other coffee forms, enhancing the strong flavor of espresso.[33]The crema is a layer of dense foam that forms on top of the drink.[34][35] It consists of emulsified oils in the ground coffee turned into a colloid, which does not occur in other brewing methods. Crema is produced when water placed under very high pressure dissolves more carbon dioxide, a gas present inside the coffee that is produced during the roasting process.[36]:96Espresso is served on its own, and is also used as the base for various other coffee drinks, including caff latte, cappuccino, caff macchiato, caff mocha, flat white, and americano.Espresso brewingFinely ground coffee for espressoEspresso is made by forcing very hot water under high pressure through finely ground compacted coffee. There is no universal standard defining the process of extracting espresso,[37] but several published definitions attempt to constrain the amount and type of ground coffee used, the temperature and pressure of the water, and the rate of extraction.[38][39] Generally, one uses an espresso machine to make espresso.The act of producing a shot of espresso is often called "pulling" a shot, originating from lever espresso machines, with which a barista pulls down a handle attached to a spring-loaded piston, which forces hot water through the coffee at high pressure. However, it is more common for an electric pump to generate the pressure.[40]Tamping down the coffee promotes the water's even penetration through the grounds.[41] This process produces a thicker beverage by extracting both solid and dissolved components.The technical parameters outlined by the Italian Espresso National Institute for making a "certified Italian espresso" are:[42]ParameterValueNecessary portion of ground coffee7 g 0,5Exit temperature of water from unit88C 2CTemperature in cup67C 3CEntry water pressure9 bar 1Percolation time25 5 secondsViscosity at 45C> 1,5 mPa sTotal fat> 2mg/mlCaffeine< 100mg/cupVolume in cup (including crema)25 ml 2,5Any bean or roasting level can be used to produce authentic espresso. For example, in southern Italy, a darker roast is generally preferred. Farther north, the trend moves toward slightly lighter roasts, while outside Italy a wide range is popular.[43]See also: Doppio, Ristretto, and LungoExtracting a doppioA double ristretto with the first half of the shot in the glass at the bottom of the image, and the second half in the glass on the rightThe main variables in a shot of espresso are the "size" and "length".[44][45] This terminology is standardized, but the precise sizes and proportions vary substantially.Cafs may have a standardized shot (size and length), such as "triple ristretto",[45] only varying the number of shots in espresso-based drinks such as lattes, but not changing the extraction. Changing between a double and a triple requires changing the filter basket size, while changing between ristretto, normale, and lungo may require changing the grind.[citation needed]The size can be a single, double, or triple, using a proportional amount of ground coffee, roughly 7, 14, and 21grams; correspondingly sized filter baskets are used. The Italian multiplier term doppio is often used for a double, with solo and triplo being more rarely used for singles and triples. The single shot is the traditional shot size, being the maximum that could easily be pulled on a lever machine. Single baskets are sharply tapered or stepped down in diameter to provide comparable depth to the double baskets and, therefore, comparable resistance to water pressure. Most double baskets are gently tapered (the "Faema model"), while others, such as the La Marzocco, have straight sides. Triple baskets are normally straight-sided. Portafilters will often come with two spouts, usually closely spaced, and a double-size basket. Each spout can optionally dispense into a separate cup, yielding two solo-size (but doppio-brewed) shots, or into a single cup (hence the close spacing). True solo shots are rare, with a single shot in a caf generally being half of a doppio shot. In espresso-based drinks in America, particularly larger milk-based drinks, a drink with three or four shots of espresso will be called "triple" or "quad", respectively.The length of the shot can be ristretto (or stretto) (reduced), normale or standard (normal), or lungo (long):[46] these may correspond to a smaller or larger drink with the same amount of ground coffee and same level of extraction or to different length of extraction. Proportions vary, and the volume (and low density) of crema makes volume-based comparisons difficult (precise measurement uses the mass of the drink). Typically, ristretto is half the volume of normale, and lungo is double to triple the normale volume. For a double shot (14 grams of dry coffee), a normale uses about 60 ml of water. A double ristretto, a common form associated with espresso, uses half the amount of water, about 30 ml. Ristretto, normale, and lungo may not simply be the same shot stopped at different times (which could result in an under- or over-extracted shot), but have the grind adjusted (finer for ristretto, coarser for lungo) to achieve the target volume.[36]:103 A significantly longer shot is the caff crema, which is longer than a lungo, ranging in size from 120240ml (4.28.4impfloz; 4.18.1USfloz), and brewed in the same way, with a coarser grind. Passing too much water through the ground coffee can add other, potentially unpleasant flavors to the espresso.[36]:99Main article: Espresso machineA manual Italian handmade espresso machineAn automatic Italian handmade espresso machineHome espresso machines have increased in popularity with the general rise of interest in espresso. Today, a wide range of home espresso equipment can be found in kitchen and appliance stores, online vendors, and department stores. The first espresso machine for home use was the Gaggia Gilda.[47] Soon afterwards, similar machines such as the Faema Faemina, FE-AR La Peppina, and VAM Caravel followed suit, with similar form factors and operational principles.[48]These machines still have a small but dedicated share of fans. Until the advent of the first small electrical pump-based espresso machines, such as the Gaggia Baby and Quickmill 810, home espresso machines were not widely adopted. In recent years, the increased availability of convenient countertop fully automatic home espresso makers and pod-based espresso serving systems has increased the quantity of espresso consumed at home. The popularity of home espresso making parallels the increase of home coffee roasting. Some amateurs pursue both home roasting coffee and making espresso.In a 100 ml (grams, 3.5 oz) reference amount, espresso has significant levels of dietary mineral, magnesium, B vitamins, niacin, and riboflavin, and around 212mg of caffeine per 100 grams of liquid brewed coffee (table).[49]Main article: List of coffee drinks EspressoIn addition to being served alone, espresso is frequently blended, notably with milk, either steamed (without significant foam), wet foamed (microfoam) and dry foamed, or with hot water.[50]TypeDrink volumeNotesEspresso2530ml (0.851.01USfloz)The basic drink from which other milk and non-milk coffee drinks are based.Ristretto20ml (0.68USfloz)Condensed espresso to approximately 20 ml.Macchiato3040ml (1.01.4USfloz)Macchiato means 'spot' or 'stain' in Italian. According to the classic Italian method, a spoonful of milk foam is added to the espresso, according to the modern method, it is filled to the edge of the cup with microfoam.Lungo60ml (2.0USfloz)Espresso pulled with double the amount of water.Americano150180ml (5.16.1USfloz)Espresso topped up with hot water in a ratio of 1:5.Long black150180ml (5.16.1USfloz)Similar to an americano, but on the contrary, the espresso is poured into the hot water.[51]Cappuccino150180ml (5.16.1USfloz)It is prepared as an espresso with a large amount of milk and milk foam. Latte art technique is often painted into the drink.Caff latte250280ml (8.59.5USfloz)At least 210 g of lightly whipped milk with foam at a temperature of 5870C is poured into the espresso.Latte macchiato250ml (8.5USfloz)Milk and milk foam are poured into a tall glass, which is left to stand for at least half a minute, then one shot of espresso is poured into it, creating three colored layers.RistrettoMacchiatoLungoAmericanoLong blackCappuccinoPreparation of caff latteLatte macchiatoOther variants:Caff crema: "long" espresso from more water and coarser ground coffee, approximately 120180 mlEspresso con panna: espresso with creamViennese coffee: 2 shots of espresso with whipped creamCaff mocha: caff latte with chocolateEspresso martini: espresso with coffee liqueur and vodkaCaff corretto ('corrected coffee'): espresso with brandy, grappa, or sambucaFreddo espresso: espresso is mixed with the sugar and ice in a drink mixerEspresso and tonicItaly portalDrink portalCoffee portalList of coffee drinksCaffeinated drink type of drinkCaff macchiatoDoppioLungoRistretto^ United States Food and Drug Administration (2024). 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Retrieved from " BookSources/978-1466854420" Skip to main content Reddit and its partners use cookies and similar technologies to provide you with a better experience. By accepting all cookies, you agree to our use of cookies to deliver and maintain our services and site, improve the quality of Reddit, personalize Reddit content and advertising, and measure the effectiveness of advertising. By rejecting non-essential cookies, Reddit may still use certain cookies to ensure the proper functionality of our platform. For more information, please see our Cookie Notice and our Privacy Policy. An espresso is the base of all barista-made coffees. But why is it called espresso? Lets get more familiar with the classic Italian beverage and popular espresso culture. Espresso was first introduced in Italy by Luigi Bezzera. Not long after, espresso culturebegan spreading across Europe. Luigi Bezzera was one of the first coffee machine inventors who enhanced the first-ever patented espresso machine, which was created in Torino in 1884, by the hotel and caf entrepreneur, Angelo Moriondo.What does espresso mean?Moriondo needed to prepare and serve coffee to his guests as fast as possible. And because his hotel was in front of the Turin Railway station, he adopted the term 'espresso - like the fastest trains of the era.Espresso machineswork by pulling hot water through the tight puck of the coffee ground. It needs significant pressure to bring out the coffee taste as quickly as possible. \rAmericano: Beverage consisting of espresso and hot water with a ratio of 1:2.\rBarista: An Italian term for a person operating an espresso machine and other coffee brewing equipment at a caf or a coffee shop.\rBrew Time: How long it takes to brew an espresso shot. Espressos standard brewing time is between 25 to 30 seconds.\rBurr Grinder: The standard type of coffee bean grinder for making espressos.\rCaffe Latte: Coffee drink consisting of espresso and steamed milk.\rCappuccino: A combination of espresso, steamed milk, and frothed milk with a 1:2:2 ratio.\rCrema: The light-brown foamy layer floating on the top of a brewed espresso. Crema usually tastes rich and creamy, because of the emulsified oils and the quick release of CO_2 developed during roasting of the coffee beans.\rDemitasse: Typically used in France, a demitasse has a capacity of approximately 6090ml half the size of a full coffee cup used in north European countries. However, the traditional Italian Espresso is served in a white china cup, holding 50-60ml.\rEspresso: Brewed coffee beans from a professional espresso machine. Its made from 7 grams of finely ground coffee and provides 30-45ml of intense liquid.\rFroth: A thick layer of cream on top of steamed milk, made by the frotheron the espresso machine. When the frother hangs on the surface of the milk, itll produce thicker foam with a lot of bubbles which becomes a froth.\rPuck: The bed of pressed (or tamped down) coffee grounds.\rTamp: Tamp or tamping is when a barista presses the bed of loose ground coffee to brew an espresso.\r\r"}} id=text-763c2ec10f class=cmp-text> Americano: Beverage consisting of espresso and hot water with a ratio of 1:2.Barista: An Italian term for a person operating an espresso machine and other coffee brewing equipment at a caf or a coffee shop.Brew Time: How long it takes to brew an espresso shot. Espressos standard brewing time is between 25 to 30 seconds.Burr Grinder: The standard type of coffee bean grinder for making espressos.Caffe Latte: Coffee drink consisting of espresso and steamed milk.Cappuccino: A combination of espresso, steamed milk, and frothed milk with a 1:2:2 ratio.Crema: The light-brown foamy layer floating on the top of a brewed espresso. Crema usually tastes rich and creamy, because of the emulsified oils and the quick release of CO_2 developed during roasting of the coffee beans.Demitasse: Typically used in France, a demitasse has a capacity of approximately 6090ml half the size of a full coffee cup used in north European countries. However, the traditional Italian Espresso is served in a white china cup, holding 50-60ml.Espresso: Brewed coffee beans from a professional espresso machine. Its made from 7 grams of finely ground coffee and provides 30-45ml of intense liquid.Froth: A thick layer of cream on top of steamed milk, made by the frotheron the espresso machine. When the frother hangs on the surface of the milk, itll produce thicker foam with a lot of bubbles which becomes a froth.Puck: The bed of pressed (or tamped down) coffee grounds.Tamp: Tamp or tamping is when a barista presses the bed of loose ground coffee to brew an espresso. How to taste espresso intensity Each type of coffee beanhas unique taste characteristics, and testers or baristas often use the term intensity to describe them. Put simply, the meaning of espresso intensity is its taste and aroma. A description of coffee intensity is often followed by the word body, which also reflects the depth of taste,The origin of the espresso coffee bean, and the various types of bean, both affect the intensity. The way in which the bean is roasted also plays a part in how an espresso tastes.Arabica or Robustablends are probably the best-known base for espresso. Arabica has sweeter and softer tones, whereas Robusta is more intense. Measuring coffee intensity When buying espresso pods and blends from the supermarket, the packaging usually marks the intensity. Itll often use a scale of 5-10 and sometimes 12 to describe the intensity after brewing. This scale isnt official and relies solely on the coffee companys judgement. In fact, your taste buds may decide its different to what the packaging says.As a general guide, if the packaging rates the bean intensity under 4, it has a light body and delicate aroma. 7 is the middle ground, and this will mean it has a more decadent aroma and slightly stronger taste. If youre looking for an intense, strong-bodied coffee, go for a 10 rating! Type of strong coffeeFor other uses, see Espresso (disambiguation).EspressoA cup of espresso in Ventimiglia, ItalyCountry of originItalyIntroduced1901ColorBrown, blackCoffee, brewed, espresso, restaurant-preparedNutritional value per 100g (3.5oz)Energy8.4kJ (2.0kcal)Carbohydrates0.Fat0.2Protein0.1Vitamins and mineralsVitaminsQuantity %DVRiboflavin (B2)15% 0.2 mgNiacin (B3)33% 5.2 mgMineralsQuantity %DVMagnesium19% 80 mgOther constituentsQuantityWater97.8 gTheobromine0 mgCaffeine212 mgLink to Full USDA Nutrient ReportPercentages estimated using USrecommendations for adults,[1] except for potassium, which is estimated based on expert recommendation from the National Academies[2]Espresso (/sprso/ , Italian: [esprsso]) is a concentrated form of coffee produced by forcing hot water under high pressure through finely ground coffee beans. Originating in Italy, espresso has become one of the most popular coffee-brewing methods worldwide. It is characterized by its small serving size, typically 2530 ml, and its distinctive layers: a dark body topped with a lighter-colored foam called "crema".Espresso machines use pressure to extract a highly concentrated coffee with a complex flavor profile in a short time, usually 2530 seconds. The result is a beverage with a higher concentration of suspended and dissolved solids than regular drip coffee, giving espresso its characteristic body and intensity.[3][4] While espresso contains more caffeine per unit volume than most coffee beverages, its typical serving size results in less caffeine per serving compared to larger drinks such as drip coffee.[5]Espresso serves as the base for other coffee drinks, including cappuccino, caff latte, and americano. It can be made with various types of coffee beans and roast levels, allowing for a wide range of flavors and strengths, despite the widespread myth that it is made with dark-roast coffee beans.[6] The quality of an espresso is influenced by factors such as the grind size, water temperature, pressure, and the barista's skill in tamping the coffee grounds.The cultural significance of espresso extends beyond its consumption, playing a central role in coffee shop culture and the third-wave coffee movement, which emphasizes artisanal production and high-quality beans.Some English dictionaries translate espresso as 'pressed-out',[7] but the word also conveys the senses of expressly for you and quickly:The words express, expres and espresso each have several meanings in English, French and Italian. The first meaning is to do with the idea of "expressing" ("pressing out of") or squeezing the flavour from the coffee using the pressure of the steam. The second meaning is to do with speed, as in a train. Finally there is the notion of doing something "expressly" for a person... The first Bezzera and Pavoni espresso machines in 1906 took 45 seconds to make a cup of coffee, one at a time, expressly for you.[8]Modern espresso, using hot water under pressure, as pioneered by Gaggia in the 1940s, was originally called crema caff (lit.'cream coffee'), as seen on old Gaggia machines, due to the crema.[9]The spelling espresso is mostly considered incorrect, although some sources call it a less common variant.[10] It is common in French and Portuguese. Italy uses the term espresso, substituting s for most x letters in Latin-root words, with the term deriving from the past participle of the Italian verb esprimere, itself derived from the Latin exprimere, which means 'to express', and refers to the process by which hot water is forced under pressure through ground coffee;[11][12] x is not considered part of the standard Italian alphabet. Italians commonly refer to espresso simply as caff (lit.'coffee'), espresso being the ordinary coffee to order. The same happens in Portugal (caf), with some regional variations (bica in Lisbon and cimbalino traditionally in Porto). In Spain, while caf expreso is seen as the more formal denomination, caf solo (alone, without milk) is the usual way to ask for it at an espresso bar. Some sources state that expresso is an incorrect spelling, including Garner's Modern American Usage.[13] While the 'expresso' spelling is recognized as mainstream usage in some American dictionaries,[14][15] some cooking websites call the 'x' variant illegitimate.[16][17][18] Oxford Dictionaries online states: "The spelling expresso is not used in the original Italian and is strictly incorrect, although it is common."[19] The Oxford English Dictionary and Merriam-Webster call it a variant spelling.[13] The Online Etymology Dictionary calls expresso a variant of espresso.[20] The Oxford Dictionary of American Usage and Style (2000) describes the spelling expresso as "wrong", and specifies espresso as the only correct form.[21] The third edition of Fowler's Modern English Usage, published by the Oxford University Press in 1996, noted that the form espresso "has entirely driven out the variant expresso (which was presumably invented under the impression that it meant 'fast, express')".[22]Angelo Moriondo, inventor of an important precursor of the espresso machineFirst patent (vol. 33 n. 256, 1884) for the espresso machine, by Angelo MoriondoAngelo Moriondo, from Turin, patented a steam-driven "instantaneous" coffee beverage making device in 1884 (No. 33/256). The device is "almost certainly the first Italian bar machine that controlled the supply of steam and water separately through the coffee" and Moriondo is "certainly one of the earliest discoverers of the expresso [sic] machine, if not the earliest". He was granted patent no. 33/256 dated 16 May 1884 (according to the "Bollettino delle privative industriali del Regno d'Italia", 2nd Series, Volume 15, Year 1884, pp. 635 655).[23][24] Unlike true espresso machines, it brewed in bulk, not as individual servings.Luigi Bezzera and one of the first espresso machines at the World Expo 1906 in Milan, ItalyBezzera Eagle 2 Coffee Maker, presented at Central Cafe BudapestSeventeen years later, in 1901, Luigi Bezzera, from Milan, devised and patented several improvements to the espresso machine, the first of which was applied for on 19 December 1901. Titled "Innovations in the machinery to prepare and immediately serve coffee beverage"; Patent No. 153/94, 61707, was granted on 5 June 1902. In 1903, the patent was bought by Desiderio Pavoni, who founded the La Pavoni company and began to produce the machine industrially, manufacturing one machine daily in a small workshop in Via Parini, Milan.[25]A detailed discussion of the spread of espresso is given in (Morris 2007). In Italy, the rise of espresso consumption was associated with industrialization and urbanization, notably in Turin, Genoa, and Milan, in northwest Italy. Italians also spread espresso culture into their East African colonies, Italian Somalia and Italian Eritrea.[26]The third-wave coffee movement encompasses espresso machines as a broader coffee culture that values relationships with growers and importers and the craftsmanship involved in making specific coffee-based drinks. The mention of brands such as Synesso, La Marzocco, and Slayer, known for their top-notch equipment, highlights the differences between traditional espresso machines and super-automatic machines to achieve a complete coffee preparation.[27]Espresso is generally thicker than coffee brewed by other methods, with a viscosity similar to that of warm honey. This is due to the higher concentration of suspended and dissolved solids and the crema on top (a foam with a creamy consistency).[28] As a result of the pressurized brewing process, the flavors and chemicals in a typical cup of espresso are very concentrated.Espresso contains more caffeine per unit volume than most coffee beverages, but as its usual serving size of 2530 ml (1 US oz) is much smaller than other coffee drinks, the overall caffeine content of a single "serving" of espresso is generally lower than that of other coffees.[29] While the exact caffeine content of any coffee drink will vary, a typical 30 millilitres (1 US fluid ounce) serving of espresso contains approximately 65 milligrams of caffeine, but a typical 240 millilitres (8 US fluid ounces) serving of drip coffee contains 150200mg of caffeine.[30][31][32]The three dispersed phases in espresso are what make the beverage unique. The first dispersed phase is an emulsion of oil droplets. The second phase is suspended solids, while the third is the layer of gas bubbles or foam. The dispersion of very small oil droplets is perceived in the mouth as creamy. This characteristic of espresso contributes to what is known as the body of the beverage. These oil droplets preserve some of the aromatic compounds that are lost to the air in other coffee forms, enhancing the strong flavor of espresso.[33]The crema is a layer of dense foam that forms on top of the drink.[34][35] It consists of emulsified oils in the ground coffee turned into a colloid, which does not occur in other brewing methods. Crema is produced when water placed under very high pressure dissolves more carbon dioxide, a gas present inside the coffee that is produced during the roasting process.[36]:96Espresso is served on its own, and is also used as the base for various other coffee drinks, including caff latte, cappuccino, caff macchiato, caff mocha, flat white, and americano.Espresso brewingFinely ground coffee for espressoEspresso is made by forcing very hot water under high pressure through finely ground compacted coffee. There is no universal standard defining the process of extracting espresso,[37] but several published definitions attempt to constrain the amount and type of ground coffee used, the temperature and pressure of the water, and the rate of extraction.[38][39] Generally, one uses an espresso machine to make espresso.The act of producing a shot of espresso is often called "pulling" a shot, originating from lever espresso machines, with which a barista pulls down a handle attached to a spring-loaded piston, which forces hot water through the coffee at high pressure. However, it is more common for an electric pump to generate the pressure.[40]Tamping down the coffee promotes the water's even penetration through the grounds.[41] This process produces a thicker beverage by extracting both solid and dissolved components.The technical parameters outlined by the Italian Espresso National Institute for making a "certified Italian espresso" are:[42]ParameterValueNecessary portion of ground coffee7 g 0,5Exit temperature of water from unit88C 2CTemperature in cup67C 3CEntry water pressure9 bar 1Percolation time25 5 secondsViscosity at 45C> 1,5 mPa sTotal fat> 2mg/mlCaffeine< 100mg/cupVolume in cup (including crema)25 ml 2,5Any bean or roasting level can be used to produce authentic espresso. For example, in southern Italy, a darker roast is generally preferred. Farther north, the trend moves toward slightly lighter roasts, while outside Italy a wide range is popular.[43]See also: Doppio, Ristretto, and LungoExtracting a doppioA double ristretto with the first half of the shot in the glass at the bottom of the image, and the second half in the glass on the rightThe main variables in a shot of espresso are the "size" and "length".[44][45] This terminology is standardized, but the precise sizes and proportions vary substantially.Cafs may have a standardized shot (size and length), such as "triple ristretto",[45] only varying the number of shots in espresso-based drinks such as lattes, but not changing the extraction. Changing between a double and a triple requires changing the filter basket size, while changing between ristretto, normale, and lungo may require changing the grind.[citation needed]The size can be a single, double, or triple, using a proportional amount of ground coffee, roughly 7, 14, and 21grams; correspondingly sized filter baskets are used. The Italian multiplier term doppio is often used for a double, with solo and triplo being more rarely used for singles and triples. The single shot is the traditional shot size, being the maximum that could easily be pulled on a lever machine. Single baskets are sharply tapered or stepped down in diameter to provide comparable depth to the double baskets and, therefore, comparable resistance to water pressure. Most double baskets are gently tapered (the "Faema model"), while others, such as the La Marzocco, have straight sides. Triple baskets are normally straight-sided. Portafilters will often come with two spouts, usually closely spaced, and a double-size basket. Each spout can optionally dispense into a separate cup, yielding two solo-size (but doppio-brewed) shots, or into a single cup (hence the close spacing). True solo shots are rare, with a single shot in a caf generally being half of a doppio shot. In espresso-based drinks in America, particularly larger milk-based drinks, a drink with three or four shots of espresso will be called "triple" or "quad", respectively.The length of the shot can be ristretto (or stretto) (reduced), normale or standard (normal), or lungo (long):[46] these may correspond to a smaller or larger drink with the same amount of ground coffee and same level of extraction or to different length of extraction. Proportions vary, and the volume (and low density) of crema makes volume-based comparisons difficult (precise measurement uses the mass of the drink). Typically, ristretto is half the volume of normale, and lungo is double to triple the normale volume. For a double shot (14 grams of dry coffee), a normale uses about 60 ml of water. A double ristretto, a common form associated with espresso, uses half the amount of water, about 30 ml. Ristretto, normale, and lungo may not simply be the same shot stopped at different times (which could result in an under- or over-extracted shot), but have the grind adjusted (finer for ristretto, coarser for lungo) to achieve the target volume.[36]:103 A significantly longer shot is the caff crema, which is longer than a lungo, ranging in size from 120240ml (4.28.4impfloz; 4.18.1USfloz), and brewed in the same way, with a coarser grind. Passing too much water through the ground coffee can add other, potentially unpleasant flavors to the espresso.[36]:99Main article: Espresso machineA manual Italian handmade espresso machineAn automatic Italian handmade espresso machineHome espresso machines have increased in popularity with the general rise of interest in espresso. Today, a wide range of home espresso equipment can be found in kitchen and appliance stores, online vendors, and department stores. The first espresso machine for home use was the Gaggia Gilda.[47] Soon afterwards, similar machines such as the Faema Faemina, FE-AR La Peppina, and VAM Caravel followed suit, with similar form factors and operational principles.[48]These machines still have a small but dedicated share of fans. Until the advent of the first small electrical pump-based espresso machines, such as the Gaggia Baby and Quickmill 810, home espresso machines were not widely adopted. In recent years, the increased availability of convenient countertop fully automatic home espresso makers and pod-based espresso serving systems has increased the quantity of espresso consumed at home. The popularity of home espresso making parallels the increase of home coffee roasting. Some amateurs pursue both home roasting coffee and making espresso.In a 100 ml (grams, 3.5 oz) reference amount, espresso has significant levels of dietary mineral, magnesium, B vitamins, niacin, and riboflavin, and around 212mg of caffeine per 100 grams of liquid brewed coffee (table).[49]Main article: List of coffee drinks EspressoIn addition to being served alone, espresso is frequently blended, notably with milk, either steamed (without significant foam), wet foamed (microfoam) and dry foamed, or with hot water.[50]TypeDrink volumeNotesEspresso2530ml (0.851.01USfloz)The basic drink from which other milk and non-milk coffee drinks are based.Ristretto20ml (0.68USfloz)Condensed espresso to approximately 20 ml.Macchiato3040ml (1.01.4USfloz)Macchiato means 'spot' or 'stain' in Italian. According to the classic Italian method, a spoonful of milk foam is added to the espresso, according to the modern method, it is filled to the edge of the cup with microfoam.Lungo60ml (2.0USfloz)Espresso pulled with double the amount of water.Americano150180ml (5.16.1USfloz)Espresso topped up with hot water in a ratio of 1:5.Long black150180ml (5.16.1USfloz)Similar to an americano, but on the contrary, the espresso is poured into the hot water.[51]Cappuccino150180ml (5.16.1USfloz)It is prepared as an espresso with a large amount of milk and milk foam. Latte art technique is often painted into the drink.Caff latte250280ml (8.59.5USfloz)At least 210 g of lightly whipped milk with foam at a temperature of 5870C is poured into the espresso.Latte macchiato250ml (8.5USfloz)Milk and milk foam are poured into a tall glass, which is left to stand for at least half a minute, then one shot of espresso is poured into it, creating three colored layers.RistrettoMacchiatoLungoAmericanoLong blackCappuccinoPreparation of caff latteLatte macchiatoOther variants:Caff crema: "long" espresso from more water and coarser ground coffee, approximately 120180 mlEspresso con panna: espresso with creamViennese coffee: 2 shots of espresso with whipped creamCaff mocha: caff latte with chocolateEspresso martini: espresso with coffee liqueur and vodkaCaff corretto ('corrected coffee'): espresso with brandy, grappa, or sambucaFreddo espresso: espresso is mixed with the sugar and ice in a drink mixerEspresso and tonicItaly portalDrink portalCoffee portalList of coffee drinksCaffeinated drink type of drinkCaff macchiatoDoppioLungoRistretto^ United States Food and Drug Administration (2024). 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