



## Tea – A Complicated Brew

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Oolong. Black. Flavored Black. Green. Yellow. White. Darjeeling, English or Irish, Breakfast or Afternoon. From China, India or Sri Lanka (formerly Ceylon)? Does it seem complicated, choosing among all those tea options?

A cup of tea – whether brewed from a tea bag or in a special pot or by a national chain – is recognized as both a refreshing and healthy beverage. Brewing that cup of tea seems pretty uncomplicated: just put some form of tea in a cup or pot, add hot water and drink. But that simple act of adding hot water to tea leaves is the end of a very complicated process.

Tea leaves come from the plant *Camillia sinensis*. There are two main varieties of this plant. One plant variety, *Camillia sinensis* var. *sinensis*, produces small leaves. These grow in cool, moist mountainous areas of China, Taiwan, and Japan. The other variety, *Camillia sinensis* var. *assamica*, produces larger leaves and grows in more tropical areas of India, Sri Lanka and Kenya.

Other countries where tea is grown include Indonesia, Nepal, South Korea, Thailand, Turkey, and Vietnam. Tea plants are also grown in small areas of at least 16 U.S. states, providing a variety of teas including black, green, red and herbal flavors. Hawaii is the largest domestic tea producer with at least 15 companies, mostly on the Big Island.

The difference in growing environments produces teas that range from bright and grassy to teas that are mellow and malty. In addition, the type of leaf used, its growing soil make-up, the elevation of the growing fields, the amount of rainfall, harvest date and kind of processing, all affect the final taste of the tea.

Tea is second only to water as the most consumed liquid in the world. Any type of “tea” that doesn’t come from the *Camillia sinensis* plant is called “herbal.” There are six main types of beverage teas: black, green, oolong, white, yellow and pu-Erh. Each type has its own special processing method and recommended brewing time. The types most familiar to American taste are the black and green teas, but increasingly Americans are experimenting with many different types and flavors of true teas and herbal varieties.

Tea production begins with harvesting the top new leaves of the plant. Processing of fresh tea leaves starts when the leaves are allowed to wither and soften. For some tea types this is eventually followed by the

process of oxidation. This exposes the interior of the leaves to oxygen by cutting, tumbling, rubbing and/or heating the leaves to produce the final flavor and aroma in the finished tea.

White tea is the least processed type of tea leaf. The leaves are picked earlier than other types of tea while the leaves are not fully opened. They have little white hairs that give this tea its name. The leaves wither, or air dry, over several days. This produces a tea that has a pale green to yellow color and a delicate and fresh taste. Caffeine levels range from 10-25 mg for an 8-ounce cup.

Green tea is also unoxidized. Fresh leaves are steamed or exposed to a temperature that prevents the leaves from browning, essentially blanching the leaves. The final green tea leaf most closely resembles the fresh picked leaf. It produces a green or yellow liquid that can have a mild grassy taste similar to steamed greens. A special variety of green tea called Matcha comes from very finely ground young green tea leaves that are used in the Japanese Tea Ceremony. An 8-ounce cup of green tea contains from 15-35 mg of caffeine.

Yellow tea production is limited to very small areas of China where it is harvested in early spring. It is harder to find than other Chinese tea varieties because less of it is exported. The processing is similar to green tea but has many more steps to produce the yellow color in the leaves. It is known for its delicate flavor. Caffeine levels for an 8-ounce cup range from 30-35 mg.

Oolong tea undergoes the most complicated process once the leaves are picked. Processing varies between that of green and black tea. Leaves are withered, bruised and oxidized several times until the tea master decides they have reached the exact level of browning and shape. Its flavor, between green and black teas, depends on the length and type of processing, and can range from floral and sweet to grassy. Caffeine content of 15-50 mg per 8-ounce cup depends on the amount of processing leaves have undergone.

Black tea is the most processed of the tea plant leaves to allow its dark color and strong flavor to develop. This is the tea found in tea bags in which black tea can be mixed with other tea types or herbs to provide a “breakfast” or “afternoon” tea blends. Incidentally, the tea bag was developed in the US in the early 1900s. The Earl Grey tea variety is a black tea base with added bergamot for flavor. Chai spice tea is black tea combined with fresh spices, favored in China and Pakistan and elsewhere. Darjeeling is a golden-tipped black tea from India. Pu- Erh is a black tea whose leaves are fermented. Black tea caffeine content ranges from 50-65 mg, about half the caffeine of an 8-ounce cup of regular brew coffee.

Tea consumption has many cultural adaptations from the Chinese Gungfu ceremony, to the afternoon tea with biscuits in the UK, the Ph Cha of Tibet and sweet tea in the US. Iced or hot, tea is a healthy and flavorful universal way of relaxing. Enjoy a cup or two as busy the holiday season approaches.

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