



An Overview of Tea, A Health Tonic and its Beneficial Impact on Human Health Worldwide

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ARTICLE INFO

Article History:

Received 28 November 2019

Revised 1 January 2020

Accepted 2 January 2020

Available Online 7 January 2020

Keywords:

Tea,
Health Tonic,
Therapeutic value,
Health Beverage,
Camellia sinensis.

ABSTRACT

Camellia sinensis commonly called “tea” is the second most extensively consumed beverage in the world, following water, and has a slightly cooling, astringent flavor. The drink is prepared from the evergreen perennial shrub called *Camellia sinensis* (L.). The tender leaves are processed to make a drink that gives people the crucial pep and stimulus necessary for doing mental and physical work. It is principally consumed as fermented tea or black tea. In addition to use as a beverage, tea leaves are consumed as vegetables, such as in the Burmese “leppet tea” and “meing tea” of Thailand which are consumed as semi-fermented or pickled tea. Also, tea has considerable therapeutic value and can cure many diseases, including cancer.

1. INTRODUCTION

Camellia sinensis is a species of evergreen shrubs or small trees in the flowering plant belongs to family *Theaceae*. Tea is the most widely consumed beverage in the world taking only second place to water. Over three million tonnes are grown annually for tea consumers worldwide. China was the first country to use tea as a medicine and drink (Acharya 1996, Ansehn 1990) and plants that are more than 1,500 years old are still blooming in the Yunnan province of southwestern China (Aspres et al. 2003, Bassett et al.1990).

Under normal conditions, tea plants can grow as high as 20–30 m, but for ease of cultivation, they are maintained as evergreen shrubs by pruning. In the tropics, harvest of the apical bud and the young leaves continued throughout the year, but in temperate environments, plucking is done seasonally.

They are common called “tea plant”, “tea shrub”, and “tea tree”.

Scientific name: *Camellia sinensis*, **Higher classification:** *Camellia*, **Family:** *Theaceae*, **Kingdom:** *Plantae*, **Order:** *Ericales*, **Rank:** *Species*

The tea plant is an evergreen shrub that provides us with black, white, yellow, and green tea as well as oolong and puerh tea. It is the leaves and leaf buds that are commonly used to produce the teas we enjoy. The difference in taste is how they are processed and how long the leaves are left on the shrub before harvesting. Interestingly, in Tanzania, tea plants have been noted to escape from cultivation in areas of Amani and

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DOI: 10.46890/SL.2020.v01i01.004

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around Mount Kilimanjaro and are considered to be invasive in parts of the Usambara Mountains. The tea plant can live anywhere between 30 and 50 years.

2. DISTINGUISHING FEATURES OF TEA

Although the tea plant is most often referred to as being an evergreen shrub, when left in the wild undisturbed it grows into a tree with a bowl-shaped canopy. The bark is rough and typically greys (Baylter 1979). The tea plant branches with alternate elliptical leaves that are leathery in texture.

2.1. Flowers

Flower blossoms are white, are quite fragrant, grow on their own or they appear in clusters of 2-4 together on short branchlets in the leaf axils. They grow up to 4cm in diameter with five sepals and can have 5-9 petals. The flowers are hermaphrodite (have both male and female organs) and are pollinated by bees.

2.2. Leaves

The tea plant's leaves are dark green with serrated edges, and a pointed tip. They are somewhat oval in shape and alternate. Most leaves tend to have a hairy underside and they usually grow to between 5 and 10 cm in length.

2.3. Height

This shrub can reach heights up to 9 meters (30') although for cultivation purposes they are pruned to about 1 -2 meter.

2.4. Habitat

The common tea plant prefers shaded areas at (typically) elevations of 2100 to 2700 meters and at forest edges. It grows in many parts of Asia, Eastern Africa and Argentina. It prefers light sandy soils and medium loamy soils that are well-drained. The tea plant is also cultivated in some areas of the U.S.

2.5. Edible Parts

Tealeaves can be eaten and in some cases they are recommended to be eaten as opposed to making tea because the nutrient content is much higher when consumed as food. The flowers are edible as well. A clear golden-yellow edible oil resembling sasanqua oil is obtained from the seed (must be refined before ingested).

3. TYPES OF TEA

3.1. Assam Tea

Assam tea is made of leaves grown in the Assam State of northeast India. It is a tea known for its strong malty flavour and bright burgundy color. Assam Valley, a lowland region near the Brahmaputra River, is one of the largest tea growing regions in the world, producing about 1/6 of the world's tea. Assam is one of the types of black tea often found in tea blends (Figure 1A).

3.2. Ceylon Tea

Ceylon tea is a single origin black tea grown and manufactured in Sri Lanka. Ceylon is a medium-bodied tea with a citrusy quality. Ceylon tea is well-known and enjoyed around the world. It is commonly used in tea blends (Figure 1 B).

3.3. Darjeeling Tea

Darjeeling tea comes from the Darjeeling District of India and is one of the most well-known types of black tea. It is a light-colored tea with a "muscatel" flavor. Darjeeling has three major plucking seasons and its characteristics depend on the time of year in which it is harvested (Figure 1C)

3.4. Golden Monkey Tea

Golden Monkey tea is a quality black tea that is smooth and mild. This tippy tea is grown in the southern regions of China and is lauded for its sweet taste and lack of astringency. The golden tips make for a delightful and delicate brew, creating one of the finest types of black tea (Figure 1D).

3.5. Keemun Tea

Keemun tea, a black tea from the Anhui province of China, is one of the most famous types of black tea from China. It has an aroma and flavor described as mellow, fruity, and wine-like. Keemun is the English spelling for "Qimen," the county in Eastern China where the tea is produced (Figure 1E).

3.6. Lapsang Souchong

Lapsang Souchong is grown in the Wuyi Mountains of the Fujian Province of China. The tea leaves are dried over a fire made of pinewood, absorbing smoke in the process. This results in a distinctive smoky flavor and aroma. This tea is known for having a very strong taste. Those who enjoy this tea describe it as a nice change of pace from other types of tea (Figure 1F).

3.7. Yunnan Tea

Yunnan tea, grown in the Yunnan Province of Southern China, is distinguished by leaf buds, or "golden tips" mixed in with the black tea leaves. The more golden tips, the higher the quality of tea. Yunnan is characterized as rich, smooth, and sweet, with a flavor sometimes described as earthy (Figure 1G).

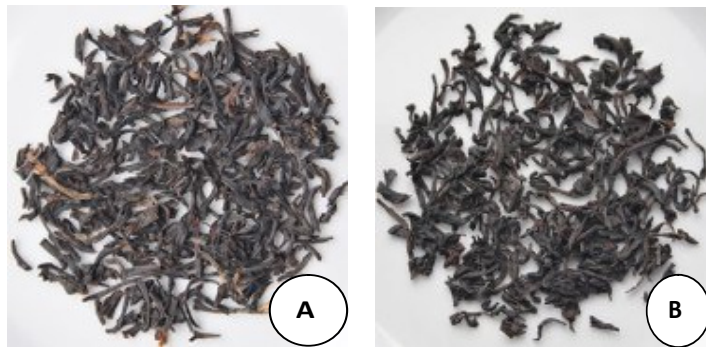




Figure 1. A) Assam Tea B) Ceylon Tea C) Dargeeling Tea D) Golden Monkey Tea E) Keemum Tea F) LapsangShouchong Tea G) Yunnan Tea

4. IMPACT OF TEA ON HEALTH

Depending on the types of Tea, its beneficial aspects are given below:

Black tea goes through a different fermentation process than green tea and comes with its own set of health benefits, including a reduced risk of having various types of cancer and cardiovascular disease. Black tea also has anti-inflammatory properties, but not quite as much as green tea. These catechins are believed to be responsible for giving green tea its potential cancer-fighting, antioxidant, probiotic, and metabolism-boosting benefits.

Green tea is part of a healthy diet which have benefits may include:

4.1 Increased Mental Alertness

Increased Mental Alertness But note the National Institutes of Health (NIH) says this could be simply because of the caffeine content.

4.2. Protection Against Heart Disease

Protection against Heart Disease Not many long-term studies have been done, but the ones that have been completed suggest green tea may help lower high blood pressure (hypertension) and keep cholesterol in check, thereby reducing the risk of developing heart disease (Biju et al. 2005, Bischoff et al. 1998). One Japanese study found people who consumed five or more cups of green tea each day had a 26 percent lower risk of dying of cardiovascular disease during an 11-year period compared with people who drank only one cup per day.

4.3. Lower Cholesterol

Lower cholesterol specifically, green tea has been shown to lower levels of the bad kind of cholesterol (LDL), while raising the good kind (HDL).

4.4. Cancer Prevention

Cancer prevention some researchers suspect the catechins have the ability to block cancer-causing free radicals. Research has been inconsistent, though, and according to the National Cancer Institute, drinking green tea isn't a proven way to protect against cancer.

4.5. Reduced Risk of Diabetes

Reduced risk of diabetes one study found people who drank at least six cups of green tea per day were 33 percent less likely to develop type 2 diabetes compared with those who drank only one cup per week. Some studies have attempted to clear up the confusion. One from Spanish researchers incorporated results from five studies and found green tea didn't lead to any significant changes in weight among overweight or obese study participants (Bishop 1995, Blackwell 1991, Gokhale 1998). There was a decrease in fat mass percentage, but not enough for the researchers to draw any conclusions.

5. CONCLUSION

As we come to concluded application of tea has found a good healthy tonic for human beings in worldwiderecent research has pointed to a host of health benefits from drinking green tea, including the prevention of cancer, cardiovascular disease, inflammation, and oxidation. The type of polyphenol found in green tea has recently been shown to regenerate elastin, an essential protein that gives the artery it's stretchy, yet study, texture," explains lead author ShujiSetozaki. With a significant impact of considering some research symbolize abdominal the beneficial aspects of tea on arterial aneurysms are caused by inflammation and the degradation of elastin components in the arterial wall, we thought drinking green tea may show promise for treatment.

Conflict of Interest: The authors declare no conflict of Interest.

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