

## **The Magic of Green Tea: An Ancient Panacea for a Modern World**

By Dustin Siena

Frequent trips to a franchise coffee house to pick up a tall latte, with an extra couple shots of espresso, seem a common occurrence these days. We simply cannot get enough stimulation. Our minds must exceed the speed at which we weave in and out of traffic on the freeway, as our caffeine-concentrated bloodstream delivers the much-needed jolt of this widely consumed drug to all the organs in the body.

Whether your vice is coffee or cola, they both share something in common: an extremely high level of one of the most powerful drugs that we covet - caffeine. Everybody craves it, and fortunes are made by exploiting it, but do we really need so much of this substance at one time? And by adding cream and sugar to our coffee, does this perpetuate a lifestyle that can help us live longer, healthier lives?

With the advent of technology, our quest for speed and stimulation has reached epidemic proportions. Consumer expectation has driven us to work harder, faster and more efficiently. In this age of the information superhighway, as we have more access to advanced information and technological wizardry, we seem to somehow become disconnected from the wisdom of our ancient ancestors. Their invention and adaptability to the environment existed without the creature comforts we have come to consider basic necessities.

### **Green Tea: A Sensory Pleasure**

Nature has given us an extraordinary substance that can give us a different kind of stimulation; a feeling that is pleasurable to the senses without producing edginess. We can elevate our awareness and consciousness without making ourselves nervous. We can expand our imagination and possibility, and solve complex problems, in a patient, joyful manner. This substance will even nourish our nervous systems, so as to prevent overstimulation. We can detach ourselves from the limitations of negative thoughts and feelings.

We can utilize this nourishment to be reflective and meditate, or engage in physical or mental activities. This is just one effect that green tea (*camillia sinsensis*) can provide to our spirit.

### **Tea: The Most Popular Beverage in the World**

While it is common knowledge that "tea" is the most widely drunk substance in the world, this anecdote refers to **black tea**. While black tea does possess health benefits superior to coffee, it does not have the powerful health benefits of green tea.

There is a myriad of mythology surrounding the discovery and widespread use of tea. While the history varies from culture to culture, since the focus of this article relates to Chinese medicine, we shall focus on the history and mythology as it evolved from ancient China.

One of the great heroes of Chinese medicine is Shen Nong. He is considered the father of Chinese herbology, and was also an emperor of China, ruling at about the time of Moses. Shen Nong often boiled his water before he drank it; he believed this to be the best way to drink water. One day, a leaf from a nearby bush accidentally fell into his pot of boiling water. He was quite happy with the decoction he had drunk, and thought it to be a great improvement from just plain boiling water. This event is considered one of the pivotal events in green tea folklore.

### **Green Tea, Black Tea & Oolong Tea: What's the Difference?**

Green, oolong and black tea are all derived from the same plant (*camillia sinensis*). What separates them in terms of color; aroma; taste; function; health benefits; and level of stimulation, is the way in which they are processed.

**Green tea** undergoes very little processing after the fresh leaves have been plucked. The enzymes need to be inactivated immediately, which would otherwise auto-oxidize the tea and transform it into the oolong or black varieties. For green tea, the fresh leaves are usually steamed. This again prevents the leaves from oxidation, which would change their nature.

The difference with black and oolong tea is that the leaves are allowed to oxidize. This transformation is produced in nature, by natural enzymes that occur in the leaves. In **black tea**, the oxidation process is lengthier than in oolong tea. **Oolong tea** is only partially auto-oxidized. The practice of this process is actually recent; it occurred in the mid-nineteenth century, making oolong a recent creation in the tea world.

Unfortunately, in both of these teas, the auto-oxidation process destroys many of the polyphenols that were originally present in the tea leaves. This degrades the tea's great health benefits. Also, in the oxidation process for both black and oolong tea, the caffeine levels are increased as the polyphenols levels are decreased. However, in green tea, this oxidation process is inhibited. The healing substances in the leaves are preserved, giving green tea the highest amount of polyphenols and the lowest amount of caffeine. Green tea also has many other unique substances, which enhance its powerful therapeutic effects on the body, spirit and mind.

### **Caffeine**

Although black tea is thought to have the highest caffeine content of all tea, this is actually untrue. Green tea has more caffeine. However it must be understood that because of other compounds, the caffeine in green tea functions in a special and balancing way. The caffeine in green tea is surrounded by tannic acid compounds, which inhibit it from surging all at once into our bloodstream. In a sense, the caffeine in green tea is time-released into our bloodstream. This time-release effect makes the stimulation gentle and quite pleasant. It also allows us to feel the effects of green tea for an extended period of time, and outlasts the effects experienced by our friends, who are drinking coffee or cola. The effect of green tea makes us free of agitation and nervousness, and its blissful stimulation feels good to the senses.

**Ingredients in Green Tea** While there are probably many undiscovered ingredients in green tea, some principal substances have been confirmed. Antioxidants called polyphenols are one of the more well-known substances in green tea. It is thought that the various types of polyphenols in green tea contribute greatly to its health benefits. The types of polyphenols can further be broken down into catechins, which represent over 30% of the contents found in green tea. It has been found that the catechins in green tea, in terms of antioxidant activity, are two hundred times stronger than that of vitamin E.

**ECGG** (epigallocatechingallate), one of the polyphenols in green tea, shares properties similar to aspirin. It can prevent platelets from accumulating and causing obstructions in the veins. The ability to prevent clotting can be effective in the prevention of cardiovascular anomalies such as heart attacks and strokes.

ECGG also has been found to have a profound impact on stopping the formation of lung cancer in patients in Japan. Smokers might consider drinking green tea as an adjunct to prevent future illness. Furthermore, as ECGG also helps regulate blood sugar levels, diabetics and those wishing to keep their blood sugar levels in check should consider consumption of green tea.

Polyphenols can help prevent the formation of plaque. It can help destroy the formation of streptococcus bacteria in the mouth. In combination with the flouride and vitamin C in green tea, polyphenols can serve as an invaluable ally in the fight against gum disease, cavities, and tooth decay.

Some other active ingredients include:

**Flouride:** Up to 1 mg can be found in a cup of green tea. This mineral can strengthen bones and teeth, and help prevent the formation of cavities.

**Aluminum:** Trace amounts can help create a buffer against gastric acids, which can help prevent and treat stomach maladies such as irritation and heartburn.

**Manganese:** This element can help strengthen bones and enhance one's ability to absorb calcium. Many people with osteoporosis can benefit from the naturally occurring manganese in green tea.

**Tannic acid compounds:** This bitter substance helps slow the release of caffeine in green tea, and is what allows green tea to produce such a gentle, smooth stimulation. Tannic acid also can help remove toxins from the intestines and stomach.

**Saponins:** Saponins are quite effective in preventing fats from entering the blood stream. This is helpful in lowering cholesterol and staying fit. Green tea is used in many thermogenic formulas to help people lose weight. Part of this function comes from the saponins' ability to enhance fat metabolism. This is one of the reasons green tea is a powerful catalyst in weight-loss programs.

**Thiamine:** Considered a B vitamin, this substance can help induce a joyful state, alleviating stress, and acting almost as a slight narcotic. In combination with caffeine, thiamine is what allows green tea to produce such a unique, euphoric state.

**Vitamin C:** Adequate amount of vitamin C are found in green tea. Usually vulnerable to heat, the vitamin C in green tea is heat-resistant. Among its functions, vitamin C increases collagen synthesis; has anti-inflammatory effects; lowers LDL cholesterol; and strengthens the immune system. Vitamin C also has a protective effect upon the gums by preventing gingivitis.

**Theanine:** This amino acid constitutes about half of the amino acid profile in a cup of green tea. This not only makes green tea delicious and aromatic, but also allows better absorption of the antioxidants

in the tea, specifically the polyphenols. According to research, theanine has been found to enhance some anti-cancer drugs, while reducing side-effects.

**Aromatic oils:** The aromatic oils provide the delicious taste and aroma that make green tea so wonderful. They also help induce a blissful state of worry-free feelings, softening the effect of the caffeine. This is why it is important to never use boiling water on top of green tea leaves. This destroys many of the valuable substances, including the aromatic and volatile oils, which are essential.

### **Health Benefits**

Simplicity is always dynamic. Drinking green tea throughout the day has a positive impact on virtually every system in the body, including the cardiovascular; circulatory; respiratory; nervous; lymphatic; immune; urogenital; and musculoskeletal systems. Few substances can boast the broad-spectrum impact green tea has on our bodies and spirits.

Regulating cholesterol levels, increasing HDL levels (the "good" cholesterol) and lowering LDL levels ("bad" cholesterol) protects our hearts. Preventing blood clots maintains the smooth flow of blood through our veins, preventing strokes, angina, and heart attacks.

Through its bitter substances, green tea harmonizes and aids our digestion, and balances our intestines and stomach. Green tea helps destroy harmful bacteria, viruses and fungi, which keeps our immune systems toned and constantly working at an optimal level. Green tea strengthens our teeth and bones, and helps to prevent future maladies such as osteoporosis and tooth decay. Other substances in green tea help us stay fit by metabolizing fat. By preventing obesity, we help ward off a plethora of obesity-related diseases.

Producing a state of clarity and divine inspiration without jitters, green tea keeps us happy and positive. The happier we are, the more endorphins and enkephalins we produce. These are the feel-good neurochemicals produced when we fall in love, eat chocolate, and laugh! Green tea also maintains a youthful appearance by tightening the skin and protecting it from harmful ultraviolet sunlight.

### **Tea Bags vs. Bulk Tea**

To engage in the ultimate and complete green tea experience, please **do not use tea bags**. The aroma, vitamin and mineral content is simply lacking. The idea that using tea bags is better than not drinking green tea at all is not a sound argument. You must use fresh leaves to benefit fully.

Bulk green tea can be purchased at a local Chinatown, or by mail order. There are endless varieties of green tea from different farmers, regions and grades. One of the most famous and popular green teas is a Chinese version called *lung ching* ("dragon's well"). In Japan, *matcha* is one of more popular green teas.

Just as there are endless types of wine, there are many other varieties of green tea. Tea can generally be broken down into green, black and oolong categories; within each category, there are basic varieties and expensive, connoisseur teas. These are wonderful to share with loved ones, and on special occasions, much like the way you would save a special bottle of wine for an important event. The beauty of tea is that at most tea shops, or at your local Chinatown, you can ask for an ounce of a very expensive tea. In these instances, a tea that would normally cost \$500 per pound may only cost \$5 to sample this sublime substance.

Teas such as *lung ching* generally cost about \$30 for a pound. A pound will last a considerable amount of time, and should be stored in a sealed vat, away from heat. Since each teaspoon can generally be brewed 3-4 times, tea is extremely economical.

### **Preparing Green Tea**

This is a complex area, which depends largely on the desired effect you wish to achieve.

**For a stimulating effect:** Use 1 teaspoon of leaves into 1 cup of hot water (140° Fahrenheit). After boiling the water, let the water cool for about 5 minutes. Let the first batch steep for 90 seconds. You can let it steep for up to 3 minutes for a stimulating effect. However, the Japanese tend to look down upon brewing tea for this long; they prefer no longer than 90 seconds. You can experiment trying from 90 seconds up to 3 minutes of steeping time.

**For a relaxing effect:** Let boiling water cool for about five minutes, then pour the water (about 140° F) onto 1 teaspoon of leaves. Let it steep for about 60 seconds, and then immediately pour out the tea. Repeat the same step again, but this time, let the tea steep for about 3 minutes. This method tends to accentuate the tannic acid content, which inhibits the caffeine. This is a nice method to use before meditation or sleep.

### **Longevity & Happiness**

As you venture into the world of tea, a magical kingdom of bliss awaits you. Your overall quality of well-being will increase, and you will gradually notice changes in virtually all facets of your life. I encourage you to try different varieties of green tea. Like wine, tea is very personal to the individual.

You will be pleasantly surprised as to how integrating green tea into your lifestyle not only expands the levels of possibility throughout your life, but also extends your longevity so that you can realize (and fulfill) your dreams.



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