



The Spinal Column

Anyone for Tea – Green Tea?

By Dr. Jonathan Eto, B.Sc., B.Ed., C.Ped., D.C.



Anyone for Green Tea?

As Canada becomes more multicultural, we often get exposed to different styles of food and drink. Green Tea, which has traditionally been a part of the Asian culture and cuisine, is beginning to attract a lot of attention for its potential health benefits. In Canada, this curative process is a novel idea, however, in the Far East, green tea has been known for its medicinal benefits for over 4000 years! Though Green Tea is not officially recognized as a medical agent, drinking green tea is reputed to be helpful for cancer, high cholesterol levels, cardiovascular disease, infection, impaired immune function, diarrhea and fatigue.

How does Green Tea “Work?”

Green tea is unique for being so rich in catechin polyphenols, particularly epigallocatechin gallate (EGCG). EGCG is a powerful anti-oxidant known to inhibit the growth of cancer cells, in addition to killing cancer cells without harming healthy tissue.

There is also research indicating that drinking green tea lowers total cholesterol levels, as well as improving the ratio of good (HDL) cholesterol to bad (LDL) cholesterol. It has also been effective in inhibiting the abnormal formation of blood clots which is of added importance when considering that thrombosis (the formation of abnormal blood clots) is the leading cause of heart attacks and stroke.

Links are being made between the effects of drinking green tea and the "French Paradox." For years, researchers were puzzled by the fact that, despite consuming a diet rich in fat, the French have a lower incidence of heart disease than Americans. The answer was found to lie in red wine, which contains resveratrol, a polyphenol that limits the negative effects of smoking and a fatty diet. In a 1997 study, researchers from the University of Kansas determined that EGCG is twice as powerful as resveratrol, which may explain why the rate of heart disease among Japanese men is quite low, even though approximately 75% are smokers.

Why don't other Asian teas have similar health-giving properties? Green, oolong, and black teas all come from the leaves of the *Camellia sinensis* plant. What sets green tea apart is the way it is processed. Green tea leaves are steamed, which prevents the EGCG compound from being oxidized. By contrast, black and oolong tea leaves are made from fermented leaves, which results in the EGCG being converted into other compounds that are not nearly as effective in preventing and fighting various diseases.

Green tea also contains varying amounts of caffeine bound to tannins. The caffeine content depends on where the tea is grown. For some types of tea, the caffeine content is comparable to that of coffee. However, even the green teas with the highest caffeine content are much gentler on the body and the adrenals than coffee, because the caffeine is bound to the tannins that exist in the tea. This ensures a somewhat slower rush of caffeine into the blood. The result is a much gentler and more sustained energy boost, compared to coffee and black tea. Also, you won't experience the energy downs you get from coffee, when the rush of caffeine suddenly stops as abruptly as it started. So for those having trouble getting through the day without coffee, which stresses the body's biochemistry, green tea is not merely an alternative, but an improvement as it has none of the negative effects.

A Couple Extra “Perks”

Researchers found that green tea seems to increase fat oxidation to a level greater than what can be explained by its caffeine content alone, allowing more calories to be burned. Thus, green tea may also assist with weight loss when combined with a proper diet.

The tannins in green tea have a beneficial effect on the gastrointestinal flora and inhibit the growth of pathogenic

bacteria in the gastrointestinal tract. Similarly, green tea can prevent tooth decay as it can kill the bacteria that causes dental plaque. In addition, green tea might also be a possible agent for maintaining remission in patients with an inflammatory bowel disease, because of its powerful antimicrobial and antioxidant properties.

Harmful Effects?

Like all caffeinated drinks, certain caution must be taken if you have a weak heart, kidney disease, an overactive thyroid, a susceptibility to spasms, or a tendency to anxiety or panic attacks. The most obvious side effect reported from drinking green tea is insomnia, however, green tea contains even less caffeine than regular coffee.

There are approximately 30-60 mg. of caffeine in six to eight ounces of tea, compared to over 100 mg. in eight ounces of coffee. Special attention should be noted if you are pregnant as excessive caffeine intake may also increase the risk of

late first or second trimester miscarriage. Nursing mothers should drink little, if any, as caffeine can cause sleep disorders in infants.

If you have a sensitive stomach, Green Tea may cause acid stomach, stomach irritation, and poor appetite. Intake of large quantities can lead to constipation or diarrhea. Adding milk to the tea will usually eliminate these side effects by reducing the potency of the tannins.

How About a Cup?

Though there is much debate as to how much is required to achieve the positive effects of green tea, the usual recommendation is 3 to 4 cups a day. While taking Green Tea extract, a dosage of 300 to 400 mg is typical. Potency may vary between manufacturers so follow instructions whenever available. Try some tea today!

Cheers!

Dr. Jonathan Eto B.Sc., B.Ed., C.Ped., D.C.

About the Author:



Dr. Eto graduated from York University with a degree in biology. He then completed teacher's college at Brock University before earning his Doctor of Chiropractic from the Canadian Memorial Chiropractic College in 2000. To add a focus on Orthotic and foot care, he continued his education in 2007 to become a Pedorthist while studying with the Robert M. Palmer M.D. Institute of Biomechanics. He is also bilingual in English and French.

An active person in the community, Dr. Eto is the Official Team Chiropractor for the Brampton Battalion (OHL) and has worked for several years with women's amateur hockey (PWHL). He also holds a Black Belt in Judo, and has competed internationally while training with Kidokan Judo Club at the Brampton YMCA. His greatest achievement was to be ranked second in Canada.

Athletic injuries have been a focus of Dr. Eto's as he has worked with several athletes and sports teams from amateur to professional levels. Dr. Eto also enjoys supply teaching on his days off, keeping in touch with youth and volunteering his services with their extracurricular programs. Other special interests are in Photography, Music (former disc jockey), Swimming (retired lifeguard) and playing Hockey and Baseball.

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