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BLACK AND GREEN TEAS

What are black and green teas?

Tea is second only to water as the most consumed beverage in the world. Both black and green tea are made from the tea plant, *Camellia sinensis*. The highest quality teas are derived from young shoots, which are the uppermost 2 or 3 leaves plus the growing bud; poorer quality teas are made from leaves located further down the stems. If tea leaves are allowed to oxidize, they become black tea. This oxidation process results in decreased



levels of catechin, the active ingredient in tea. Green tea is preferred as it is less processed, resulting in a higher level of catechins.

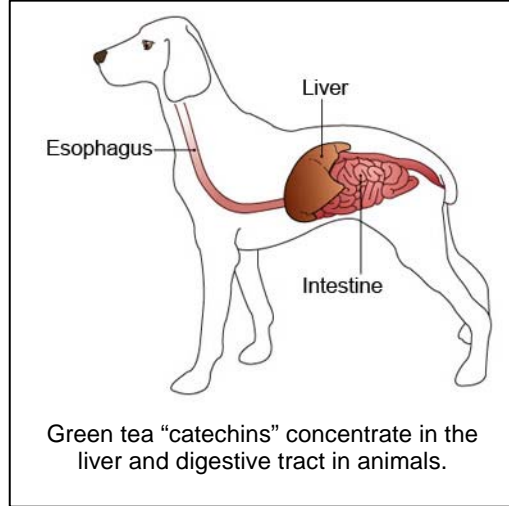
Catechins or polyphenols have been shown to possess strong antioxidant properties (see article on antioxidants), thus preventing damage to DNA, and reducing risk of cancer cell formation. Through their antioxidant activity, the catechins in green tea also may profoundly reduce inflammation of the liver and gastrointestinal tract, providing a potential benefit in enteritis and hepatitis in small animals of almost any cause. The four major green tea catechins are epicatechin, epigallocatechin, epicatechin gallate, and epigallocatechin gallate (EGCg; the most potent and physiologically active antioxidant of the four catechins). A typical cup of green tea contains between 300-400 mg of catechins, of which 10-30 mg is EGCg. Black tea contains theoflavins and theorubigins, which inhibit carcinogens and protect against oxidative damage.

Why recommend the administration of tea to my pet?

Green tea might be beneficial in any condition calling for the use of antioxidants. In humans, green tea is indicated as an antioxidant, an anti-cancer agent, and to lower blood cholesterol. Several tumor types are inhibited by green tea, including cancers of the stomach, gall bladder, prostate, uterus, lung, intestine, colon, rectum and pancreas. Green tea also inhibits breast cancer by binding to estrogen receptors, making it of potential value in the treatment of mammary gland cancer in small animals. Its comprehensive action against a variety of tumors in humans suggests green tea may provide the same benefits in animals. Although they are absorbed into all body tissues, green tea catechins concentrate in dogs and laboratory animals in the liver and digestive tract, making it more likely they will prevent tumors and inflammation there than anywhere else.

How much experience is there with the use of tea in pets?

Epidemiological research suggests that regular consumption of green tea reduces the incidence of colon, pancreatic, and stomach cancers in humans. Clinical trials using green tea are limited in number, however the use of tea supplements in dogs and cats has likewise not been proven in clinical trials but its effectiveness is assumed based upon studies in people and laboratory animals. Tea supplements are rarely used alone, but are usually combined with other supplements as part of an integrated approach to cancer management.



How safe is tea?

Black and green tea is a food and is therefore generally regarded as safe. Green tea does contain some caffeine, although at a lower level than black tea or coffee, and can therefore cause insomnia, nervousness, and the other well-known symptoms of excess caffeine intake. Commonly cited contraindications for green tea use include renal (kidney) inflammation, gastrointestinal ulcers, cardiovascular disease, insomnia and increased intraocular (inner eye) pressure. Green tea may increase blood pressure immediately following consumption. EGCg has provoked asthmatic attacks in a small number of asthmatic patients working in a tea factory. In general, supplements containing green or black tea are very safe, and side effects are more likely to be seen in people (or pets) consuming multiple cups of tea than if taking supplements.

Where do I get tea supplements and do I need a prescription?

Your veterinarian may have preferred supplements that he or she will recommend. Pet owners are cautioned against buying supplements without knowledge of the manufacturer, as supplements are not highly regulated and some supplements may not contain the labelled amount of ingredients. A prescription is not needed for tea supplements. Many animals are simply provided with dried green tea mixed in their pet food.

*This client information sheet is based on material written by Steve Marsden, DVM ND MSOM LAc DipICH AHG, Shawn Messonnier, DVM and Cheryl Yuill, DVM, MSc, CVH.
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