

HEALTHCARE NATURALLY: THE POWER OF TEA
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Herbal teas have been used in medical practice from time immemorial. In recent times, the most popular herbal tea is green tea, with increasing interest in white tea. There is a large body of scientific literature that describes the health-giving benefits of green tea which are mainly explained by antioxidant actions. Oxidative damage to tissues by free radicals causes much chronic disease and it is implicated in many disorders including damage or wrinkled skin, muscle pain following exercise, tissue aging and the progression of many common chronic diseases, such as diabetes and arthritis.

In several countries around the Pacific Rim, green tea is a staple in the diet and its documented health potential includes anti-cancer effects, assistance with weight control and the promotion of cardiovascular health... to name a few disorders. Health claims concerning the use of green tea are not permitted to be made in the United States, but the Japanese government has registered green tea as a cancer preventive agent. In the US, the most popular hot beverage is coffee but on a global basis tea is the number 1 beverage. While coffee has had a mixed record in health promotion, modern research draws attention to the health benefits of coffee polyphenols, such as Chlorogenic acid. Chlorogenic acid seems to decrease the synthesis of sugar in the liver which is a major problem in many individuals who are overweight and those who have metabolic Syndrome X. It is interesting to note that polyphenols are a major health giving component of tea and these naturally occurring substances have beneficial effects on sugar metabolism. In fact, reproducible population studies show that coffee polyphenols may protect against Type II diabetes mellitus, to a variable degree. Important components of green tea include catechins which are powerful antioxidants. Epi-gallocatechin gallate, otherwise known as EGCG, is a very important health-giving catechin.

Green tea has generally a poor reputation for its bitter flavor, but modern nutraceutical technology has resulted in the development of green tea concentrates that are placed in convenient dropper bottles where a few drops of these concentrates can be added to hot or cold water to produce an energizing, refreshing, pleasant-tasting beverage. Major use of these green tea concentrates has been their addition to water bottles that are used by people involved in aerobic exercise. It is not widely appreciated that green tea contains adaptogenic (anti-stress) compounds such as L-theanine which is a calming component. Green tea concentrates contain only small amounts of caffeine but they do produce a perk for exercise and they assist in reducing free radical damage to muscle tissue that causes post-exercise, muscle stiffness or discomfort.

The green tea concentrates, used as dietary supplements, provide very high antioxidant activity with superior ORAC values (**O**xxygen **R**adical **A**bsorbance **C**apacity),

in comparison with many other supplements. Their convenience is well accepted by healthcare consumers who may not wish to consume tea products in standard tea bag forms. One must appreciate that the health benefits of green tea in population studies in the Orient have involved anti-cancer benefits associated often with the consumption of more than 10 cups of green tea daily. The green tea concentrates are equivalent to hundreds of tea bags in their total packaged format, in monthly supplies. The exact equivalence of green tea concentrates and tea bags are difficult to estimate with accuracy, but the concentrates are much more powerful in their antioxidant content.

The guiding principles of the formulation of supplements with antioxidant function is to make sure the antioxidants go to all body tissues and that they work across a range of activity, called REDOX balance. This is the main reason why I have formulated organic green tea concentrates with several other antioxidants given in small amounts, including: grape seed extract, pinebark extract, red clover, curcumin, ellagic acid, magic fruit extract (Lohan), citrus bioflavonoids, resveratrol, selected oligomeric proanthocyanidins, stevia extract and licorice. This combination provides quintessential antioxidant activity when taken in a regular manner and it forms the basis of Green Tea Max™ (Natures Benefit Inc). Of current interest is the pleasant flavor and enhanced antioxidant activity of white tea which is easily combined with green tea to amplify health effects. This combination is a good foundation to add other herbal ingredients in a mix e.g. Hoodia Supreme Slim Tea™. However, I do not believe that teas are sufficient for weight control without appropriate diet, exercise and behavior modification.

There are many other examples of herbal teas that have been used for anything ranging from anti-stress activity (e.g. Chamomile tea) to adjunctives for weight control (e.g. Hoodia tea). It is not possible to innumerate all the benefits and applications of herbal teas, but scientists are now looking at the contents of specific herbal teas for disease treatment, but such claims cannot be applied at law. Recent research has focused on the traditional folklore use of several types of tea from various plants. In particular, water soluble fractions or distillates of many plants have been used because crude, concentrated extracts of many botanicals may be quite toxic. For example, the use of tea or water distillate from Ecballium elaterium (squirting cucumber) has been proposed recently by Egyptian researchers as an interesting anti-viral agent with specific effects on Hepatitis C virus infection and associated chronic liver disease. This plant has also been used for many years in Turkey as a remedy for chronic sinusitis. However, readers must understand that claims of disease treatment are not permitted with the use of herbal teas in the USA. These are some examples of emerging studies on teas where toxicity may be reduced by distilling water extracts of several plants. Unfortunately, there may be some unpredictable toxic reactions to some herbal teas and all may produce allergy in susceptible individuals. In cases of doubt all people are advised to check with their healthcare giver.