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Nutritional Aspects of Some Herbal Drinks

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ABSTRACT

Tea and coffee are the popular beverages consumed worldwide. Yearly an average of billion kilograms of tea and coffee are produced and consumed. Caffeine-containing beverage is most common drink next to water. Although caffeine may improves airway function modestly up to four hours in people with asthma. But more consumption of tea and coffee has some ill effects on different system of the body. Other than consumption of tea or coffee, the adulteration which are admixtures causing severe health hazards. To maintain a healthy lifestyle one should follow the health beverages mentioned in Ayurveda according to season. Traditional health drinks are to be promoted and bring in to practice instead of tea and coffee, which is beneficial for health.

KEYWORDS

Tea, Coffee, Caffeine, Health drinks, Ayurveda



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INTRODUCTION

In present era one can get tea, coffee easily in all places in compare to drinking water or other health drinks are hardly available. Sometimes there will be no choice to avoid consumption of tea or coffee. Even people around are also habituated to offer tea or coffee several times a day as a matter of respect or gratitude. Most of the time one cannot or may not be able to even reject the offering. Even though it is not a good habit to drink tea or coffee multiple times a day it is inevitable and deep rooted in our social practices. It is even found in outpatient department (OPD) practices people complaining of weakness with anemia with regular or over consuming of tea or coffee.

LITERARY REVIEW

Tea

Tea contains *Thein* which has a pharmacological action similar to Caffeine, Tannin and an essential oil which imparts a characteristic aroma. One teaspoon of tea leaves infused in a cup of boiling water for five minutes gives approximately 60-120 mg of caffeine. Tea sipped with food produces insoluble *iron* tannate, causing reduction in iron absorption, which in turn leads to anemia. As tea is a rich in Oxalic acid, excessive consumption may lead to the development of renal calculi¹. Excessive drinking of tea causes neurological disorders². Tea increases fluorides in the body; thereby excessive use

causes a great damage to both teeth and bones if the concentration of fluoride exceeds 1-1.5 ppm³.

Catechins of Green tea have beneficial effect on high-fat diet-induced obesity and type II diabetes and reduce the risk of coronary disease. Further research is required to monitor the pharmacological and clinical effects of green tea and to elucidate its mechanism of action⁴.

Black tea contains more *polyphenol* than green tea, which helps in reduction of body weight through

- Inhibition of lipid and Sachharideabsorption
- Promotion of lipid metabolism

Further epidemiological studies are required to prove the relevance between anti-obesity and black tea *polyphenols*⁶.

Coffee

Coffee is rich in *caffeine* which is very powerful nerve and heart stimulant. It is used to save a person if his heart fails on the operation table. One dose of 5-10 grains will act on the heart and make it to beat again by contraction. If the person has been drinking coffee; the injection of caffeine fails to work due to the tolerance developed in the body by the constant daily use of coffee in large quantities⁶. Therefore, value your life and be kind to it for preventing such drug addiction.



Table 1 Approximate Amounts of Caffeine in Different Drinks

Drink	Quantity	Amount of Caffeine
Coffee	236 ml	95-200 mg
Cola	350ml	35-45 mg
Energy drink	236ml	70-100 mg
Tea	236ml	14-60 mg

Effects of Caffeine on the body⁷

- Stimulates central nervous system, which boosts the energy (Table-2).
- Is a diuretic, helps the body to get rid of extra salt and water through urination.
- Increases the release of acid in your stomach, thereby may lead to stomach upset or heartburn.
- May interfere with the absorption of calcium in the body.
- Increases blood pressure.

Within one hour of eating or drinking caffeine, it reaches its peak level in the blood. You may continue to feel the effects of caffeine for four to six hours. It acts on the metabolism of the body and hastens old age and cut down the valuable days of one's life.

Energy drinks or Pop Drinks

- The amount of caffeine in energy drinks can vary widely, and sometimes the labels on the drinks do not give the actual amount of caffeine in them. Energy drinks may also contain sugars, vitamins, herbs, and supplements. Companies that make energy drinks claim that these drinks can increase alertness and improve physical and mental performance.

Table 2 Effects of caffeine on Different Systems of the Body

S.N.	System Affected	Symptoms
1	Gastro-intestinal system	High acidity of stomach, gastric ulcer, loss of appetite
2	Cardio-vascular system	High blood pressure, palpitation of the heart
3	Nervous system	Craving for smoking, nervousness, insomnia, excessive perspiration, neuralgia, intolerance to pain, over sensitiveness, hysteria, headache etc.,
4	Renal system	Excessive urination, kidney damage, uric acid diathesis
5	Genital system	Impotency
6	Oral cavity	Reduced oral hygiene, plaque formation, dental carries (as sugar is converted to lactic acid by bacteria)

It has helped them to make the drinks popular with young adults. There is no enough availability of documented evidences to show that they enhance strength or power. But what that can be understood is energy drinks can be dangerous as they contain large amounts of caffeine and sugar. It is dangerous to drink energy drinks with alcohol. Caffeine can interfere with one's ability to recognize how drunk he/she is, which can lead to drink more and more unknowingly.

Nutritional Values of Tea and Coffee

Though tea and coffee do not provide any nutrition, niacin content of coffee is very high; one cup of dark roasted coffee contains between 2mg to 3mg of niacin, while light roasted coffee provides 1mg of niacin per cup.



Adulteration of Tea and Coffee

Wood powder is the common adulterant for Tea powder. Coffee, because of its high price is frequently adulterated with roasted peas, cereals, tamarind seeds, date seeds, tapioca skin, chicory, a plant root (imparts flavor to coffee); which can be blended with coffee in proportions up to 50%. Such coffee is known as French coffee, and presence of chicory will be declared on the container.

Traditional Health Drinks (Table-3)

In Ayurveda different traditional health drinks are described e.g. *Paniyakalpana*, *Arkakalpana*, *Himakasayakalpana*, *Manthakalpana*, *Panakakalpana*, *Udakakalpana*, *Phantakalpana* etc. Other than these preparations many natural health drinks are available in use.

Shadanga Paniya: *Yavakuta Churna of Usira, Parpataka, Udichya, Musta, Nagara, Candana* each 1 part with 384 parts of water taken in a stainless steel container then it should be boiled on mild flame till the liquid content gets reduced to half. Then it should be filtered with cloth and stored in a clean glass bottle. It has properties of *Deepana, Amadosha hara* and *Pachana*⁸.

Dhanyaka Hima: *Yavakuta Churna of Dhanyakato* to be prepared in *Khalva Yantra* and it is placed in stainless steel vessel and hot water is added. The vessel is kept undisturbed for one night. Next day morning it should be rubbed with hands and filtered with clean cloth. It has properties of *Srotovishodhana*.

Kharjuradi Mantha: *Kharjura* are soaked in

drinking water for two hours. Then it is mashed properly adding with some salt, black paper and sufficient amount of water. This provides wide range of essential nutrients.

Chincha Panaka: Well ripened *Chincha* are collected. After removing the seeds, soaked in water for two hours, then it is mashed properly. Sugar, salt, powder of cumin seeds and black pepper are added to this. It should be mixed properly with sufficient amount of water.

Tandulodaka: Coarsely powdered rice is soaked in cold water. Then it is filtered to collect the water. It is rich in Vitamin-B complex specially Thiamine.

Panchakola Phanta: Coarse powder of *Pippali, Pippali Moola, Chavya, Chitraka Mula* and *Shunti* are kept in hot water. When water becomes cold, powder is rubbed and filtered. It improves appetite and helps for digestion.

Green coconut water: Coconut water to be used as rehydration fluid. It can be used in hypokalemia as it is rich in potassium. It is used in treating severe gastroenteritis⁹ and hypertension¹⁰.

Nimbu Water: It is prepared by mixing water, lemon juice, salt and sugar. Lemon is rich in Vitamin C. It can be used on regularly because it is rich in water soluble Vitamin C which is essential on daily basis.

Mango Juice: It can be prepared by unripe mango or ripened mango. Fresh mango contains a variety of nutrients. Out of them Vitamin-C and folate are most abundant i.e.



44% and 11% of daily values respectively¹¹.

Watermelon Juice: Rich in Vitamin-C i.e. 10% of the daily value¹². It also contains carotenoids such as Lycopene¹³. Lycopene is a potent antioxidant and decrease aging.

Cane Juice: It is rich source of energy. It contains antioxidants¹⁴. Sugar cane juice is widely used in jaundice, dysuria, anuria and other urinary diseases¹⁵.

Milk: It is a good source of proteins, vitamin and minerals. For vegetarians milk is the good source of Vitamin-B₁₂. Skimmed milk should be the choice to reduce saturated fat. After boiling, milk is allowed to cool, a thick layer of fat and coagulate proteins float on the surface and can be skimmed off; by repeating the process twice, most of the fat is removed¹⁶.

Takra: Those who have lactose intolerance they can take *Takra* (butter milk). Rasa of *Takra* is *Kashaya* and *Amla*. *Kashaya Rasa* reduces vitiation of *Kapha* and *Amla Rasa* reduces the vitiation of *Vata*¹⁷.

Ragi Ambali: It is a traditional drink of *Uttara Karnataka*, prepared from millet *Ragi*. It is taken as a regular drink during summer along with lunch. It is prepared by soaking *Ragi* flour in butter milk overnight, next day morning boiled with sufficient quantity of water until it becomes semi liquid consistency. It should be allowed to cool completely and served by mixing with

butter milk, salt and garlic paste. This drink will give cooling effect, as well as the addition of salt and garlic paste helps to pacify *Vata Dosha*. The millet *Ragi* is rich source of iron and calcium thus can be used as iron and calcium supplement¹⁸.

Makka Ambali: Traditional summer drink of *Telangana* prepared from maize flour, curd, water and salt. It is used as a regular drink especially during summer. It is prepared using maize flour with curd, salt and water. One day prior to preparation the mixture of maize flour, curd and water is kept for fermentation in the heat of sun during day time for 4 to 5 hours. Next day, this fermented mixture is added gradually to the boiling water adding sufficient quantity of salt and cooked properly till it gets the semisolid consistency. The drink is ready for consumption with excellent nutritional values.

Moong Soup: Greengram is soaked in water, to be boiled with sufficient water added with *Jeera powder*, *Dhaniya powder* and salt specially *Saindhava* salt. It can be taken in the morning. It is a good source of proteins.

Cinnamon Tea: Cinnamon tea is made by infusion of cinnamon sticks or ground cinnamon in hot water. It is a great choice for people looking for a low-calorie diet beverage. Cinnamon tea does not contain any calories or fats and boasts a host of



vitamins, minerals, and dietary fiber that support overall health. Cinnamon tea is also natural remedies for diabetes mellitus¹⁹.

Panakam: 50 gm of jaggery is added to 1 litre of water and let it dissolve. Crush 3 cardamoms, ½ teaspoon of dried ginger and the juice of 1 lemon. Serve cold or at room temperature. It can be garnish with mint leaves. Panaka is prepared in the summer to quench the excess thirst.

Nannari Sarbat: It is in regular practice in Kerala. Nannari (*Hemidesmus indicus R*) Sarbat is prepared with Nannari roots. The syrup is prepared by boiling the roots with water, sugar and a pinch of lime. It is having antioxidant and antimicrobial properties²⁰.

Tulsi kashayam: Tulsi leaves are added in two cups of water into a sauce and give it a brisk boil. Once the color of the water changes, add the half teaspoon black pepper powder, half teaspoon ginger powder, one teaspoon palm sugar and boil for a few more minutes. Serve the Tulsi kashayam hot and have it two to three times a day to get maximum relief from cough and cold. It helps you get a relief from respiratory disorders, fever, asthma and lung disorders²¹.

CONCLUSION

Traditional health drinks are rich sources of Vitamins, minerals and antioxidants. Water soluble vitamins (Vitamin C, B complex)

are required daily.

Table 3 Traditional Health Drinks

During summer	SnuffSoaked Water, Mango Juice, Nimbu Water (source of Vitamin- C), Watermelon Juice, Tender Coconut Water, Butter Milk, Cumin Water.
During winter	Warm Milk added with Turmeric Powder
Loss of appetite	<i>ShunthiKashaya, PanchakolaPhanta</i>
For common cold	Lukewarm milk with Turmeric powder is ideal as milk contain Vitamin-B ₁₂ (Vitamin-B ₁₂ deficiency one of the cause of common cold)
Diarhoea	Butter milk
Rheumatoid arthritis	<i>ShunthiKashaya, PanchakolaPhanta</i>
Fever	<i>Sudarshana Phanta</i>

Tea consumption before food or along with food inhibits iron absorption. Consumption of Tea and Coffee on regular basis as a drink of choice is not good for health. So instead of tea and coffee it is better to adapt Traditional Health Drinks as per season and disease condition because of their safety, easy availability and cost-effectiveness



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