

The Positive Effects of Green Tea Consumption Amidst in Covid-19 Pandemic Situation

Dr. Sulakshana Mane, Urmi Shah

(Assistant professor), Department of Nutrition and Dietetics. Sir Vithaldas Thackersey College of Home Science (Autonomous), S.N.D.T.W. University, Juhu, Mumbai-400 049, Maharashtra, India.

Corresponding Author- Dr. Sulakshana Mane

Abstract:

In the backdrop of the COVID-19 pandemic, this research explores the potential impact of green tea and warm water consumption on overall health. The study, conducted under the guidance of Dr. Sulakshana Mane, investigates the habits and preferences of 51 participants, aged 20-40, amid the pandemic. Notably, 55% of subjects prefer both green tea and warm water, emphasizing their combined significance. Warm water, known for reducing toxins, emerges as a crucial remedy during the pandemic, with 73% of participants consuming 2-3 glasses daily. Adding lemon to warm water is recommended to boost immunity. Green tea, for its polyphenolic compounds, including catechins, proves to be a valuable beverage. Its antioxidant properties contribute to weight reduction, stress alleviation, and enhanced immunity. The study underscores the synergistic impact of combining green tea and warm water on immune function. Results indicate a noteworthy preference for this combination (55% of participants). The research offers insights into the habits and choices of individuals during the pandemic, emphasizing the importance of incorporating warm water and green tea into daily routines for holistic well-being.

Keywords: COVID-19 pandemic, Green tea consumption, Warm water benefits, Immunity enhancement, Nutritional strategies, Polyphenolic compounds

Introduction:

Amidst the pandemic situation of Covid-19, research has explored the potential impact of consuming green tea and/or warm water on the body. The coronavirus family, known for causing illnesses in animals and humans, includes various strains ranging from the common cold to severe diseases like MERS and SARS. The latest addition, COVID-19, emerged in Wuhan, China, in December 2019, swiftly transforming into a global pandemic. Characterized by symptoms such as fever, dry cough, and fatigue, COVID-19 can also manifest as aches, nasal congestion, headache, sore throat, and more. While

most individuals experience mild symptoms, about 20% may face severe complications, particularly those with underlying health conditions. Green tea, renowned for its antioxidant properties, has been studied for potential antiviral and anti-inflammatory effects, though conclusive evidence regarding its role in combating COVID-19 remains inconclusive. As our understanding of the virus evolves, individuals, regardless of age, are advised to stay vigilant and seek immediate medical attention if experiencing symptoms such as difficulty breathing, chest pain, or loss of speech or movement.

Beverage: The Green Tea:

Green tea, derived from the *Camellia sinensis* plant, stands out among the various tea types for its profound impact on human health. Originating in the 17th century when it was exported from India to Japan, green tea has become a global phenomenon, with approximately 20% of the world's tea production dedicated to its cultivation. Rich in polyphenols, particularly catechins, green tea has been studied extensively for its health benefits. These polyphenolic compounds, constituting up to 30% of the dry weight, include flavanols, flavandiols, flavonoids, and phenolic acids. Catechins, such as epicatechin, epigallocatechin, epicatechin-3-gallate, and EGCG, are prominent in green tea and contribute to its diverse pharmacological properties. Scientific research has highlighted green tea's antioxidant effects, showcasing its potential as an anti-cancer, anti-obesity, anti-atherosclerotic, anti-diabetic, anti-bacterial, and anti-viral agent. Additionally, green tea and its constituents exhibit antitumorigenic properties and act as immune modulators. Epidemiological studies and clinical trials suggest that regular consumption of green tea may reduce the risk of various chronic diseases, making it a beverage with multifaceted health-promoting potential.

Situation of Pandemic:

The COVID-19 pandemic, marked by global lockdowns and home confinement, has triggered universal anxiety and distress. The constant influx of information through online platforms may exacerbate psychosomatic issues, potentially leading to enduring psychological problems. Studies emphasize the significant impact on mental well-being, making it crucial to understand and address the multifaceted consequences at personal and population levels.

Home Remedies for Boost Immune System:

Warm Water:

When you're stuck at home during quarantine, it can lead to health issues like obesity, stress, anxiety, and constipation due to lack of physical activity. A simple remedy is to start your day with warm water, maybe with a bit of lemon or tea. This helps reduce free radicals in your body. Warm water tightens your intestines, making elimination more efficient. It also cleanses your body by flushing out toxins. Plus, it aids digestion – warm water breaks down food faster, making it easier on your stomach. Drinking warm water on an empty stomach in the morning can improve bowel movements.

Sencha:

Sencha, the most popular green tea, undergoes common processing methods involving steaming and rolling leaves to create crude tea. Known for aiding weight loss, its antioxidant properties contribute to youthful skin by reducing wrinkles and repairing damaged skin.

Fukamushi Sencha:

Fukamushi Sencha, steamed twice as long as regular Sencha, results in powdery leaves and a stronger taste with a darker green color. This unique tea variety offers a distinct flavor profile.

Gyokuro:

Gyokuro tea bushes are covered before picking, limiting light exposure to suppress astringency and enhance flavor. With an aroma reminiscent of nori seaweed, Gyokuro has higher caffeine content and contains catechin, aiding in cardiovascular health. Gyokuro's EGCG antioxidant supports metabolism and fat burning.

Kabusecha:

Similar to Gyokuro, Kabusecha is grown with covered culture, but for a shorter period. This tea variety, covered about a week before picking, offers a unique flavor profile and health benefits associated with green tea consumption.

Matcha:

Matcha, stoneground from Tencha leaves just before shipping, holds cultural significance in Japan's tea ceremonies. Derived from old tea bushes or modern cultivars,

it's used in confections and savory dishes. Unique, as the leaf is fully consumed, Matcha is rich in EGCG catechins with potential cancer-fighting effects. Studies associate green tea, including Matcha, with preventing heart disease, type 2 diabetes, cancer, and promoting weight loss.

Genmaicha: A Japanese green tea blend with roasted brown rice, offering a nutty flavor. **Tencha:** Shade-grown leaves ground to make Matcha, integral to traditional Japanese ceremonies. **Hojicha:** Roasted green tea with a unique toasty flavor and lower caffeine content. **Shincha, Ichibancha, Nibancha, Sanbancha:** First, second, and third harvests, each with distinct flavors and freshness qualities.

Green Tea and Immune System:

Natural remedies like honey and warm water offer a safer alternative to antibiotics for coughs, suitable for children (over two) and the elderly. Cost-effective and readily available, these remedies soothe sore throats and respiratory infections. Gargling with salt and warm water provides instant relief. Lemon-infused warm water or tea with honey boosts immunity with vitamin C. Starting the day with hot water and lemon aids metabolism, potentially assisting in breaking down body fat.

About the research study of Green Tea Consumption:

A research study conducted under my guidance by Urmi Sanjay Shah, a third-year student from the Food Nutrition and Dietetics Department at SVT College of Home Science, SNDT Women's University, Juhu, investigated the effects of green tea and warm water consumption on the overall day of individuals aged 20-40 amid COVID-19. Under the guidance of Dr. Sulakshana Mane, a Professor from the same department, the study employed a survey form to gather information about participants' green tea and/or warm water intake, reasons behind their choices, and lifestyle factors. Using a randomized control trial technique, 51 participants were screened and surveyed for the study. There was the situation of COVID-19 so Face to face interview was not carried out. Therefore, the data collection of study was done by telephone method.

There are total 51 subjects:

Only green tea = 6 subjects

Only warm water = 17 subjects

Both green tea and warm water = 28 subjects (28 for green tea and 28 for warm water)

For green tea (n=34) = 6+28=34

$$51-34 = 17$$

So therefore, these 17 subjects are for warm water only.

For warm water (n=45) = 17+28=45

$$51-45 = 6$$

So therefore, these 6 subjects are for green tea only

After asking, what do you prefer to drink, during Covid-19?

We found that – Green Tea 12%, Warm Water 33% and Both 55%.

The preferences of beverages chosen by the subjects during COVID-19. According to the results out of 51 subjects, major study population chose both Green tea and Warm water i.e. 55% (n=28), 33% of subjects (n=17) chose Warm water and 12% of subjects (n=6) chose green tea as their beverage.

Discussion:

As the results of the current studies states that 73% (n=33) consumed 2-3 glasses of warm water throughout the day. During this COVID-19 pandemic it is recommended to drink warm water to reduce toxins. It is a miracle liquid remedy that will keep us in shape physically and mentally. To be healthy, one must drink the required quantity of Hot Water in a day. Health is wealth, so we have to keep a healthy body to have a wealthy lifestyle. Adding lemon to warm water is a recommended practice to boost immunity and reduce toxins. In the current study, 23 subjects were noted for not drinking warm water after coming from outside during the pandemic. It is highly advised to consume hot water with lemon or plain hot water as a precautionary measure against potential exposure to infection. This practice not only serves as a preventive measure but also promotes a healthier habit of drinking warm water.

Conclusion:

In the context of the ongoing COVID-19 pandemic, nutritional strategies for enhancing immunity are crucial, and the consumption of warm water and green tea emerges as a recommended practice. Scientific evidence supports the health-promoting effects of green tea catechins, particularly EGCG, contributing to weight reduction, stress alleviation, and immunity enhancement. The study emphasizes the benefits of warm

water, suggesting its role in toxin reduction and weight management. Additionally, combining green tea and warm water appears to yield a synergistic impact on immunity. This underscores the importance of incorporating these simple yet effective practices into daily life for overall well-being during the pandemic.

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