

# **DEVELOPMENT OF GREEN TEA INCORPORATED AYURVEDIC TOOTHPASTE**

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## ABSTRACT

The tea *Camellia sinensis* is the most consumed beverage in the world next to water, with per capita consumption of 120 mLd<sup>-1</sup>. The total amount of tea produced and consumed in the world, 78% is black, 20% is green, and 2% is oolong tea. Black tea is consumed primarily in Western countries and in some Asian countries, whereas green tea is consumed primarily in China, Japan, India, and a few countries in North Africa and the Middle East.

Among all made tea categories green tea is an unfermented tea which has higher polyphenol content. Epicatechins are the main compounds in green tea, accounting for its characteristic colour and flavor.

Green tea extracts with other sources of polyphenol constituents are increasingly recognized as being potentially important to medicinal benefits. The oral benefits of green tea are Cavity prevention, Gum health, Less tooth loss, Cancer control, Better breath. Green tea polyphenols are potent antioxidant compounds that have demonstrated greater antioxidant protection than vitamins C and E in experimental studies.

Green tea may well be a treat for the taste buds and for the oral cavity as well. It contains compounds that appear to control inflammation and fight bacterial infection. Since it has a higher potential to establish a new product line as oral hygiene product, few studies have been conducted for the development of green tea based tooth pastes in the world.

This study was aimed to develop green tea incorporated ayurvedic toothpaste by addition of five different herbs (Aralu, Welmee, Munamal, Sesame and Clove) to enhance the natural flavor of the tooth paste while increasing the oral health benefits. The experiment was conducted as two sections. According to the results, to develop good quality ayurvedic toothpaste 1% of green tea extract and 2% of herbal oil amount was the best ingredient combination. New product was contained an appropriate polyphenol content, foaming volume, stability, pH value fluoride content by fulfilling SLS requirement as well as it was having good effectiveness against *S. aureus* and coliform bacteria. As a real solution, development of toothpaste by incorporating green tea and natural ayurvedic herbs is beneficial for oral health and it will help people to preserve their smile in healthiest way.

*Key Words:* Sri Lankan Standards, Ultra Violet, *Staphylococcus aureus*