

# tulasi

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**THE NUTRITION AND BIOACTIVE SUBSTANCES OF *OCIMUM SANCTUM* Linn.  
(TULASI) TEA, CAN BE HEALTHY, REFRESHING, AND SOOTHING,  
SUPPORT CULINARY TOURISM**

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**ABSTRACT**

Culinary tourism is part of the backbone that supports a country's economic life. According to that fact, Indonesia should have a special concern by building a strong branding for its tourism. The development of tourism in Indonesia, apparently affects the complexity of the needs of the tourists. Often while traveling, the travelers need an adequate health. For this reason, health tourism is a tremendous potential to be taken seriously. Tulasi tea culinary is one choice that has big potential to work out, because Indonesian's most type tourists, they will always have a need to fill the stomach, are all refreshing, healthy and soothing. The goal of the promotion is to increase the number of Indonesia's foreign visitors, by giving impression and belief that Tulasi tea as potential nutrition and bioactive substances has a unique, interesting, cool, refreshing, healthy and soothing sensation, as vitamin K, beta carotene, C, folate, fatty acids as stearic, palmitic, oleic, linoleic, linolenic and mineral sodium, manganese, calcium potassium, zinc and magnesium, as antioxidant polyphenol rosmarinic, eugenol, cinnacrol and terpene. Promotion Tulasi tea should be done consistently and continuously. The government is expected to be more creative in promoting health Tulasi tea culinary, with the manufacture of various culinary travel guide books Tulasi tea for health, in order to reach an increasing number of foreign tourists.

*Key Words : Health Tourism, Culinary Tourism, Tulasi Tea, Nutrition and Bioactive Substances*

**Introduction**

Culinary tourism is part of the backbone that supports a country's economic life. According to that fact, Indonesia should have a special concern by building a strong branding for its tourism. The development of tourism in Indonesia, apparently affects the complexity of the needs of the tourists. Often while traveling, the travelers need an adequate health. For this reason, health tourism is a tremendous potential to be taken seriously. The development of tourism in Bali, more widespread, the development of a wide range of facilities supporting tourism and hospitality are also increasingly rampant built, one of which is a restaurant. Food is a primary human needs that must be met in advance compared to other types of needs (Astri Primasari, 2015). Tulasi tea culinary is one choice that has big potential to work out, because tourists will always have a need to fill the stomach, are all refreshing, healthy and soothing (Cohen, 2017).

Tulasi is an important symbol of the Hindu religious tradition. Although the word 'Tulasi' gives the connotation of the incomparable one, its other name, Vishnu priya means the one that pleases 'Lord Vishnu'. Found in most of the Bali homes and worshipped (Rai, 2002). Tulasi, otherwise known as holy basil, is known for its healing power. Historically used as medicine due to its widespread healing power, Tulasi leaves are now regarded by most countries as adaptogens (antistress agents) and have been used widely to promote health throughout the

entire body, which <sup>1</sup> is able to control the balance of various metabolic processes of the body and prevent <sup>5</sup> stress. It has made important contribution to the field of science from ancient times <sup>4</sup> as also to modern research due to its large number of medicinal properties (Singh *et al.*, 2005). It is a herb that is bestowed with enormous antimicrobial substances and is used to treat a variety of illnesses ranging from <sup>18</sup> diabetes mellitus, arthritis, bronchitis, skin diseases, etc. (Bhat *et al.*, 2008; Gupta *et al.*, 2013). Recent studies have <sup>15</sup> also demonstrated significant anticancer properties of Tulasi (Mageshet *et al.*, 2009). Hence, it is also termed as the queen of herbs or the mother medicine of nature (Gupta *et al.*, 2013).

The nutrition and bioactive substances Tulasi as pharmacological properties of the whole herb in natural form, result from synergistic interaction of many different active phytochemical, consequently, the overall effects of Tulasi cannot be fully duplicated with isolated compound or extracts (Tewari *et al.*, 2012). Therefore this paper reviews nutrition and bioactive substances *Ocimum sanctum* L. (Tulasi) tea, can be healthy, refreshing, and soothing, support culinary tourism.

### **Nutrition Tulasi Tea can be Healthy, Refreshing, and Soothing Support Culinary Tourism**

There are two common types of Tulasi : Rama Tulasi has a white stem and green leaves, and Khrisna Tulasi has a dark pinkish-purple stem and leaves. Both types are similar in smell and benefits. 1/4 cup of fresh Tulasi leaves (six grams) includes the following (listed in recommended daily values) (Axe, 2017) :

- 1 calorie
- No cholesterol
- 0,2 grams of sodium
- <sup>1</sup> 2 grams of carbohydrates
- 31 percent vitamin K
- 6 percent vitamin A
- 2 percent vitamin C
- 3 percent manganese
- <sup>1</sup> percent folate
- 1 percent calcium
- 1 percent potassium
- 1 percent magnesium

The fixed oils of Tulasi revealed <sup>9</sup> the presence of five fatty acids as stearic, palmitic, oleic, linoleic, linolenic. It is a good source of beta carotene, vitamin C, and calcium. It also contains zinc, manganese and sodium (Singh *et al.*, 1996 in Tewari *et al.*, 2012).

The leaves of Tulasi may also be abundant with antioxidants. These types of quite crucial nutrition assist slowly up the procedur for excessive oxidation that may take place soon after extended interval of stress, and also safeguard the body from illness simply by neutralizing free-radicals <sup>3</sup> which could damage your tissues and cells (Cohen, 2016).

Vitamin K is an essential fat-soluble vitamin that plays an important role in bone <sup>16</sup> health and heart health. It's one of the main vitamins involved in bone mineralization and blood clotting, but also helps maintain brain function, a healthy metabolism and cellular health. One cup of Tulasi leaves has more than your daily recommended value of vitamin K, making it a perfect

source to prevent vitamin K deficiency, and can be beneficial to your bone density, digestive health and brain function. Tulasi also helps protect your body from radiation poisoning and heals damage from radiation treatment. It selectively protects the normal tissues against the destructive effects of radiation. Laboratory studies published in *Alternative Medicine Review* show that Tulasi protects against toxic chemical-induced injury by increasing the body's levels of antioxidant molecules such as glutathione and enhancing the activity of antioxidant enzymes. These enzymes protect cellular organelles and membranes by fighting free radical damage caused by a lack of oxygen and other toxic agents. This particular repairing of cells might help the body age in a sluggish speed. This particular herbal wonder is highly regarded and also privileged because of its abundant antioxidant as well as adaptogenic qualities each of which are helpful to decreasing stress as well as promoting mental clearness. Adaptogens are agents that help the body cope with stress, enhance physical and mental health and promote longevity. Adaptogens are therefore primarily used by healthy people to improve defenses, and increase resistance to a broad spectrum of harmful physical, chemical and biological stressors. Tulasi has a unique combination of antioxidant, anti-inflammatory, antimicrobial and other actions that combine to help the body and adapt and cope with a wide range of physical, emotional, chemical and infectious stresses (Axe, 2017; Cohen, 2017).

The leaves of the fragrant plant may also be abundant antioxidant. These types of quite crucial nutrition assist slowly up the procedure for excessive oxidation that may take place soon after extended intervals of stress, and also safeguard the body from illness simply by neutralizing free radicals which could damage your tissues and cells (Axe, 2017).

Tulasi has a potential and good nutrition such as antioxidant, stearic acid, palmitic acid, oleic acid, linoleic acid, beta carotene, vitamin C and calcium, zinc, manganese and sodium. The nutritional and pharmacological/ medicinal properties of the whole herb in natural form, result from synergistic interaction of many different active phytochemicals, consequently, the overall effects of Tulasi cannot be fully duplicated with isolated compounds or extracts. In conclusion it is to be found that the various, complex and potential phytochemistry and nutrition of the Tulasi (Singet *et al.*, 1996 in Tewari *et al.*, 2012), support health culinary tourism.

### **Bioactives Substances Tulasi Tea can be Healthy, Refreshing, and Soothing Support Culinary Tourism**

Tulasi tea, known within the Eastern world as the “Queen of Herbs”, might help recover good balance to the mind and help reduce tension and stress of everyday life by calming a number of the unwanted effects of stress on the central nervous system. There are numerous other health advantages of consuming Tulasi tea. For instance, assisting healing vision to improving respiratory function, improving metabolism, as well as assisting to assist healthy blood glucose levels and also digestive health. It may replenish you whenever you feel exhausted, assist with clearness of the mind, and also help with assisting regular levels of cholesterol (Axe, 2017).

Tulasi may be a COX-2 inhibitor, like many modern painkillers, due to its significant amount of eugenol. The chemical composition of Tulasi is highly complex, containing many nutrients and other biological active compounds. The nutritional and pharmacological properties of the whole herb in natural form, result from synergistic interaction of many different active phytochemicals, consequently, the overall effects of Tulasi cannot be fully duplicated with isolated compound or extracts.



Tulasi's unique pharmacological activity particularly helps address many issues faced by modern air travelers such as infection, fatigue, thrombosis, anxiety, and dealing with restraint, noise, hypoxia (from oxygen reduction), radiation, industrial chemicals and poor sleep. The beneficial effects of Tulasi have been demonstrated in numerous animal experiment and and human trials have shown that Tulasi can improve general anxiety and stress scoes, relieve symptoms such as forgetfulness and f<sup>10</sup>ings of exhaution and assist with sexual and sleep problems (Cohen, 2017). Tulasileaves are rega<sup>3</sup>ed as an 'adaptogen' or antistress. Recent studies have shown that leaves provide its user with significant protection against stress. Even healthy persons can chew 12 leaves of Tulasi, twice a day to prevent stress. It even purifies the blood and helps prevent several common psychological disorders (Bhargava *et al.*, 1981).

Tulasi leaves are quate effective intreating common oral infections. Also few leaves chewed help in ma<sup>3</sup>aining oral hygiene. CarracrolandTerpene are the antibacterial agents present in this plant. The polyphenol rosmarnic acid is a strong antioxidant present in Tulasi. So it can be used in treatment of all other oral precancerous lesions and conditions (Agarwal *et al.*, 2010)

Despite being pressurized, an aircraft flying at cruising, altitude has cabin air with approximately 20-25% less oxygen than at sea level. At a height of around 10km, aircraft are also less protected from cosmic radiation by the earth's atmosphere with even greater radiation exposure occurring on flight paths further away from the equator. Ionisingradiation causes harmful biological effects by directly damaging living tissues, cells and disrupting molecules such as DNA, yet Tulasi has been shown in multiple experiments to protect against such damage. Tulasi has also been seen shown to protect against radioactive iodine, a significant contributor to the health hazards from nuclear accidents as well as range of environmental chemicals and other toxins. The Centre for Disease Control in the US currently list over 60 infections diseases related to travel. Travellers are more prone to infections due to grater exposure to different pathogens and the immune suppressant effects of travel stress. Yet, recent research suggests that Tulasi may support the human immune system to fight off infections (Cohen, 2017).

Tulasileaf in Italian cuisine is used in pizza, pasta, chicken, cheese and pesto dishes. In France tulasi leaf is used in omlet and soup. Tulasi leaves should be added towards the end of cooking to maintain their flavor. Leaf extraction is used as a stimulant and carminative (an agent that prevents or reduces flatulence or flatulence). In Vietnam tulasi is used to treat fever and malaria. The seeds are used as non-alcoholic beverages and medicines (Aguilar *et al.*, 1999).

### Conclusion

1. Tulasi tea as potential nutrition has a unique, interesting, cool, refreshing, <sup>14</sup>healthy and soothing sensation healthy support culinary tourism, as vitamin K, A, C, folate, fatty acids as stearic, palmitic, oleic, linoleic, linolenic and mineral sodium, manganese, calcium potassium, zink and magnesium.
2. Tulasi tea as potential bioactive substances has a unique, interesting, cool, refreshing, healthy and soothing sensation support culinary tourism, as antioxidant polyphenol rosmarnic, eugenol, carracrol and terpene.
3. Promotion Tulasi tea should be done consistently and continuously. The government is expected to be more creative in promoting health Tulasi tea culinary, with the manufacture of various culinary travel guide books Tulasi tea for health, in order to reach an increasing number of foreign tourists.

## References

- Agarwal P, Nagesh L, Murlikrishnan.2010. Evaluation of the antimicrobial activity of various concentrations of Tulsi extract against streptococcus mutans. Ind J Dent Rest, 21 (3).
- Aguilar, NO., Tho, PTT.,Oyen, LPA. 1999. *Ocimum b.L.* PROSEA Foundation. Indonesia.
- Anonimus. 2010.Pemanfaatan TanamanObatKeluarga (Toga) untuk Kesehatan Keluarga, *library.usu.ac.id*. Diaksespada 24 Juli 2015.
- AstriPrimasari. 2015. PromosiKulinerLokalsebagaiDayaJualPariwisata Indonesia untuk Backpacker Asing. Jurnal Tingkat SarjanaBidangSeniRupadanDesain. Bandung. ITB.
- Axe. 2017. 10 Benefits of Tulsi-Helps Combat Cancer, Infections and More. <https://draxe.com/tulsi/>
- Bhargava, KP., Singh, N., Antistress Activity of *Ocimum sanctum* (Tulasi). Indian J. Medical Research, 73.
- Bhat, M., Zinjarde, SS., Bhargava, SY., Kumar, AR., Joshi, BN. Antidiabetic Indian Plants : A good source of potent amylase inhibitors. Evid Based Complement Alternat Med.
- Bora, KS., Arora, S., Shri, R. 2011. Role of *Ocimumbasilicum* L. in Prevention of Ischemia and Reperfusion-Induced Cerebral Damage, and Motor Dysfunctions in Mice Brain. Journal of Ethnopharmacology 137 (3): 1360-1365.
- Cohen, M. 2017. Tulsi: First Aid in a Teacup. [Organicindia.com/organicindia\\_old/design/MarcCohenrticle.pdf](http://Organicindia.com/organicindia_old/design/MarcCohenrticle.pdf).
- Gupta, B., Kumar, VN.,Mallaiah, S. 2013. Assessment of Antimicrobial Activity of Various Concentrations of Commercially Available Tulsi Powder against Streptococcus Mutans. Open Journal of Dentistry and Oral Medicine 1(2). <http://www.hrpub.org>.
- Hikmat, A., Ervial, AM., Zuhud, Siswoyo, Sandra, E., Kartika Sari, R. 2011. RevitalisasiKonservasi TOGA GunaMeningkatkanKesehatandanEkonomiKeluarga Mandiri diDesa Contoh Lingkar Kampus IPB Darmaga Bogor. JurnalIlmuPertanian Indonesia Vol. 6, No. 2.
- Karyasari, KTO. 2009.*Konsep-Konsep Pengobatan Klinik Herbalis Karyasari*. Jakarta. KebunTanaman Obat Karyasari.
- Magesh, V., Lee, JC.,Ahn, KS., Lee, HJ., Lee, EO., Shim, BS. 2009. *Ocimumsanctum* induces apoptosis in A549 lung cancer cells and suppresses the in vivo growth of Lewis Lung carcinoma cells. Phytother Res 2009 Res.

- Merdeka. 2012. Daun Tulasi Ampuh Hentikan Kebiasaan Merokok.  
<https://www.merdeka.com/sehat/daun-ini-deklaim-ampuh-hentikan-kebiasaan-merokok>.
- Ladion, HG. 2006. *Tanaman Obat Penyembuh Ajaib*. Bandung. Indonesian House Publishing.
- Rai, Y. 2002. Holy Basil :Tulsi (A Herb). Navneet Publications India Ltd.
- Singh, S., Malhotra, M., Majumdar, D.K. 2005. Antibacterial Activity of *Ocimum sanctum* L. Fixed Oil. *Indian Journal Exp Biology*: 43(9).
- Tewari, D., Sah, AN., Pandey, HK., Meena, HS. 2012. A Review on Phyto constituents of *Ocimum*(Tulsi). *IJAM*. Uttarakhand, India.  
<http://www.ijam.co.in/index.php/ijam/article/view/103>





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