

Nagabhushan Moolky, PhD, CNS, Illinois, USA - a certified nutrition specialist. He worked as a scientist for the last 35 years. He was a Scientific Officer at Tata Memorial Center Cancer Institute, Bombay, India where he completed his Ph.D. He worked as a scientist in several top notch Universities in USA. He was the first one to show (1984) that some of the spices (its principles) - Turmeric (Curcumin), Ginger (Gingerol, Shaogol and zingerone), Catechu (Catechin) and betel leaf (Hydroxychavicol) prevents genetic damage resulting in cancer formation caused by environmental and dietary chemicals. He is the first one to show (1984) that Turmeric in diet prevents virus-induced spontaneous mammary tumors in mice. His research was recognized by more than 20 awards by national and international organization including Young Scientist Award (Gold Medal), 1988 from Indian Council for Medical Research (ICMR), New Delhi, India and New Investigator Award 1989, American College of Nutrition, USA. He has published his research findings in peer-reviewed national and international scientific journals and also presented more than 150 abstracts in national and international scientific meetings. In 2004, he was invited to present his work at the First International conference on childhood leukemia, London. The presentation was covered by all major news papers and news channels around the world including BBC, CNBC, CBS, ABC news.

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Scientific evidence to use Turmeric and coconut oil to boost immunity: Research Perspective

From time immemorial Turmeric (Tur) and coconut have been used in India and Southeast Asia. Coconut oil and coconut milk and Tur, a yellow colored spice are widely used in India every day. Both are used in large quantities for the preparation of curry, pickle, dishes and sweets. Tur and coconut are considered as auspicious, used on occasions such as religious, and marriage ceremony. It is used as Ayurvedic medicine to treat common cold, sore throat, cuts, wounds, swellings, scorpion bites and has analgesic effect. Corona virus (COVID-19) spreads very quickly and kills people around the world. There is no vaccine or cure for this virus infection. Mutation rate is very high happens quickly. At present only possible way to overcome from this disease is to avoid exposure to infected subjects, washing hands frequently with soap and boost the host immunity to virus.

Before 1984, Tur research was focused on anti-inflammatory, antimicrobial to a lesser extent antiulcer and antioxidant activities. Curcumin (Cur) is the yellow coloring principle of Tur (2-3%). In 1984, Dr, Nagabhushan first published a scientific study to showing that Tur and Cur prevents genetic damage induced by environmental and dietary mutagens/carcinogens. Consumption and application of Tur/Cur may prevent many types of cancer - skin cancer, leukemia, lymphoma, breast, stomach and colon. For the first time Dr. Nagabhushan reported (1987) that Tur in diet prevents virus induced spontaneous mammary tumors in mice. Cur enhances retinoic acid-induced human leukemia cell to differentiate from a normal cell. Epstein Barr Virus (EBV) causes lymphoma in humans. We have shown (1997) that in human B cell lymphocytes, cur blocks the EBV activation and proliferation. Cur exhibits antiviral activity against papilloma virus, HIV, Ebola, Nora virus, chikungunya, virus, dengue fever, Zika virus, influenza and hepatitis B and C virus. Recent molecular docking studies revealed that Cur is a potential inhibitor of COVID-19 (2020). Virgin coconut oil has lauric (47%) and capric (7%) medium chain fatty acids,

exhibit antiviral activities by stimulating the cells to secrete 10 times more triacyl glycerol that will not allow viral protein to assemble proper way and makes it inactive (eg. Stomatis Virus, Simian virus, Bovine enterovirus, H5N1 virus, type 1, coxsackievirus B5, encephalomyocarditis virus and human rhinovirus 1B. Both Tur and coconut oil boost immunity in humans.

In coastal areas of India, coconut plantations is an economically beneficial crop. Everyday local people consume plenty of coconut milk, coconut oil and tender coconut water. Coconut oil is used for making curries, dishes and deep frying. Also used as a massage oil. Traditionally, cold pressed coconut oil is prepared from sun dried coconuts. After modernization the method of heat pressure extraction of oil is adopted. To extend the shelf life of the oil chemically treated that destroyed the health benefits of the oil. mass production. Very recently they have go back to the traditional way of cold extraction of coconut oil and labeled it as virgin coconut oil (VCO). VCO is rich medium chain fatty acid, lauric acid (47%), Capric acid (7%) and caprylic acid (7%). VCO is highly beneficial to human health, has wide spectrum of antibacterial activity, antiviral activity and antifungal activity. It improves host immunity against infections, enhances remodeling of damaged lung tissue, reduces inflammation by inhibiting the secretion of pro-inflammatory cytokines, increases the level of heart friendly high density cholesterol. Lauric acid exhibit properties of both small and long chain fatty acids. When lauric acid is exposed to cells, a 10 fold increase in the secretion of triacyl glycerol. Because of this the viral protein unable reassembles in functionally active form. COVID-19 corona virus is an enveloped RNA virus. It is important for this virus to assemble in proteins to attach to the cell membrane in order to enter the cell. Lauric acid inhibits viruses that are lipid-coated such as vsna virus, CMV, Epstein barr virus, influenza virus, leukemia virus, pneumonia virus, hepatitis C virus, bovine enterovirus. HIV, Herpes Simplex-1 virus, Junv virus that causes human hemorrhagic fever, is an enveloped virus with glycoproteins, embedded in the lipid bilayer comparable to COVID-19

While manufacturing medically useful antiserum and antivenom preparations, caprylic acid (2-3%) is used to get rid off viruses. In Food industry also lauric acid is used to prevent biological contamination. Some of the vaccines effect is enhanced by caprylic acid. It is also used as vehicle for hydrophobic drugs. Note that lauric acid and Cur have anticancer activity and may be useful for people with cancer who are susceptible to COVID-19.

HOW TO USE

How to use coconut oil and Tur – The infectious virus spread through by touching and by breathing the virus infested air through the nose and mouth. Local application of Cur is very effective in treating infection, inflammation and cancer. Nashya is a method of administering herbal medicated oil to the nose. Nasya cleans the airway and balance the natural breathing and increases the local mucosal immunity to pathogens.1) Hand washing, Bhushan Method of hand washing, Put few drops of coconut oil, rub oil to both sides of hand, in between finger for 20 seconds or more. Then wash the hand with soap and hot water 20 seconds, as recommended. Apply hand lotion or cream containing coconut oil/coconut milk. 2) Put few drops of VCO to nose, with the help of filler drop few drops of oil into both the nostrils, lying down and facing up, stay for 5 minutes in this position. Blow the nose by closing one nostril with one hand fingers and do to the other nostril the same. 3) Take half to one tea spoon of oil with empty stomach. Eat and drink after half an hour. 4) Put one gram of Tur powder to 10ml of warm coconut

oil. Keep overnight to allow particulate matter to settle or filter through two layers of cheese cloth and use after cooling. Put few drops of oil mentioned in 2. Boil Turmeric powder and freshly ground black pepper, clove, cinnamon in filtered water or fresh Turmeric root juice, fresh ginger juice (antiviral and enhances absorption), do not boil this. Allow to cool, then add coconut oil, milk and honey mix and take as mentioned in step 3. Fresh ginger juice, honey and clove have antiviral activity. Ginger, milk and black pepper enhance the absorption of Cur (Tur active yellow compound). Heating at 70 to 80 degree centigrade for 10 minutes increases the solubility of Cur in water by 12 fold without losing its molecular integrity and biological activity. Diabetic persons are more susceptible to viral infection. Some of the viruses increase blood glucose levels. Cinnamon is a natural blood sugar lowering spice. Ayush, Ministry of Health, Government of India as preventive measure for COVID-19 infection, suggested putting few drops of Ghee, Sesame oil or Coconut oil. Taking a spoon of turmeric powder in warm milk (Recommended by a panel of 16 eminent Vaidyas (Ayurvedic Physicians) of India.