

HEALTH BENEFITS OF VARIOUS YOGAS W.S.R. TO ROLE IN INFECTIOUS
DISEASES AND COVID 19

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ABSTRACT

Ayurveda natural system of healing and healthy conducts practicing from Vedic period of Indian civilization. Ayurveda not only contributed towards disease treatment but this system also emphasizes ways of longevity and spiritual harmony. Ayurveda for the management of good health status mentioned uses of natural remedies along with disciplinary life-style and exercises. Ayurveda in this regards described Yoga practices as yogic system of medicine which mainly involves practices of Yogic exercise and Sadhana as spiritual conduct. Yoga practices not only help in maintaining physical health but also impart beneficial effects towards mental and spiritual health. Yoga imparts well-being, mental calm, relieves stress and detoxifies body, etc. therefore provide therapeutic benefits in many conditions including infections and fever. Considering this facts present article explored health benefits of various Yoga practices especially towards infectious diseases.

KEYWORDS: Ayurveda, Yoga, Infection, Health.**INTRODUCTION**

Ayurveda play important role towards the management of public health and this science helps to treat diseases through natural ways. *Yoga* is one such approach of Ayurveda which acts as preventive as well as treatment modality of natural science. *Yoga Asanas* corrects *Doshic* balances and promote inner healing. *Yoga* prevents many diseases; strengthen lungs, heart, digestive and nervous system. *Yoga* promotes general immunity therefore provides resistant against infections. *Yoga* acts on *Doshas*, boost *Dhatus*, clears *Malas* and maintain functioning of circulatory system of body.

Yoga benefits on Doshas

- Aggravated *Pitta dosha* can be balanced through forward bending postures.
- Twists pose of *Yoga* helps in *Kapha dosha*.
- *Vata Dosha* balances through backward bends pose.

General health benefits of Yoga

- *Yoga* postures tone body thus boosts rigidity of body.
- *Yoga* cleanses internal organs; remove toxins from the body.
- Relaxes muscles and suppress physical anxiety.
- Improves immune system of human body, provide strength against common infections.
- *Yoga* enhances physical appearance and contributes towards beauty.

- *Pranayam* purify blood and improves circulatory functioning of body.
- Resist symptoms of early aging.

Yoga & Infectious Diseases

Yoga improves respiratory functions thus provide relief in respiratory infections and allergy. *Yoga* practices boost immune system thus resists prevalence of infections. *Pranayam* enhances oxygen in blood thus can be helpful in condition where oxygen level decreases significantly i.e. Covid-19. *Yoga* lower stress hormones thus help mentally in pandemic outbreak where mass destruction observed. *Yoga* improves supply of oxygenated blood to the organs therefore improves functioning of vital organs. Improves supply of nutrients to the body thus cure post infection weakness. Joint pain associated with pandemic infections also gets relived through *Yogic Asanas*.

Yoga helps in symptoms of infection such as; fever, fatigue, cough and breathing difficulty. *Yoga* balances mind and body constitution thus maintain homeostasis among the nervous, endocrine and immune systems. Clinically *Yoga* have been proved as an effective approach to reduce acute stress which may be associated with depression or anxiety in case of pandemic infection. *Yoga* improves functioning of heart which get may diminish in respiratory infection. Studies reported beneficial effects of *Yoga* in communicable diseases like; influenza, tuberculosis and common cough & cold. The

alteration in immune system through *Yoga* is one the factor responsible for therapeutic response.

It is believed that in case of respiratory or allergic infection *Yoga* improves breathing capacity, relieves respiratory obstruction, increase lung capacity and control response to allergens. *Yoga* help in stress induced immune deregulation and strengthen inherent immune response thus resist prevalence of communicable viral infections. *Yoga* modulates immune responses as well as inflammatory pathways in viral infections. The specific health benefits of *Yoga* in respiratory infections depicted in **Figure 1**.

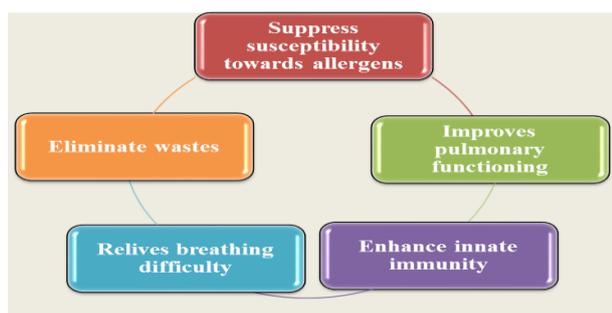


Figure 1: Yoga benefits in respiratory infections.

In regards of pandemics there is high levels of psychological stress, *Yoga* modulates HPA axis thus helps in such types of stress and strengthen recovery process.

Interferon-gamma (IFN- γ) is considered a regulating factor of cell-mediated immunity possessing antiviral and immune-regulatory functions. *Yoga* can stimulate level of interferon-gamma (IFN- γ) and imparts resistance against many viral infections. *Yoga* can boost innate immunity during the incubation stages thus help to eliminate viral load. *Yoga* alters migration and functioning of blood lymphocytes thus improves first line defense mechanism of body. *Yoga* limits viral spread and tissue damage by improving leukocytes migrations through enhanced circulatory process. It is reported that meditation and *Yoga* improves plasma melatonin levels which affect cellular and humoral immunity. *Yoga* increases levels of IgA (antibody mediating mucosal immunity) thus protect against invading pathogens.

Specific Health Benefits of *Yoga* in Viral Infections

- *Yoga* practice can down regulate pro-inflammatory markers thus relieves inflammatory symptoms of viral infections. *Yoga* alters levels of interleukin-1 and tumor necrosis factor.
- Increased cytokine levels and decreased IFN- γ expression observed in COVID-19, *Yoga* reduces cytokine and alter IFN- γ expression thus can be used as complementary or alternative approach such infection.
- *Yoga* practice may reduce influence of systemic hyperglycemia on patient of COVID-19 thus control disease severity in diabetic patient.

- *Yoga* and meditation relaxes sympathetic nervous system and reduces blood pressure thus suppress risk of cardiovascular events in case of chronic infection.
- Breathing exercises offers beneficial effects on the respiratory system. *Yoga* strengthens expiratory as well as inspiratory muscles.
- *Yoga* improves ventilatory functions and prolongation of breath-holding time.
- *Pranayama* strengthen cardio-respiratory coupling and boost heart functioning.
- *Kapalabhati* help to tone diaphragm and abdominal muscles. Thus improves digestive and metabolic functions, also facilitate removal of toxins from body.
- It helps in removal of bronchial secretions, cleans respiratory passages and improves pulmonary functioning thus useful for respiratory infections.
- *Yoga* alleviates chronic obstructive pulmonary disease accompanying with respiratory infections and allergy.
- *Yoga* increases respiratory stamina, relaxes chest muscles, calming whole body and expands lungs.
- Breathing exercises helps in acute respiratory distress.
- *Yoga Asanas* relieves acute airway obstruction.

CONCLUSION

The Ayurveda believes in natural ways of healing and *Yoga* practice is one such approach which not only protects from pathological conditions but also promote general health. *Yoga* not only imparts mental and physical benefits but it also contributed towards spiritual and ethical values. *Yoga* modulates immune responses, improves functioning of respiratory systems and acts against infectious diseases therefore can be used as alternative or adjuvant therapy towards the prevention of viral infections including COVID-19.

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