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## Pranayama helps to boost immunity to fight against Covid-19

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### Abstract

This paper presents the importance of pranayama which will help to boost immunity for a healthy life with regular practice. Pranayama is not an alternative medicine of COVID-19 but a precaution to keep Covid-19 away. So, this is the time to beat coronavirus issues and improve immunity with ease i.e. with regular pranayama practice our background has given us numerous lifestyles based on total principles of preserving our body and mind in proper shape. Pranayama is one such way of lifestyle that our ancestors have given us. Basically, Pranayama is the regulation of breath. It is scientifically and fantastically designed to give full-size workout not best to our lungs, but to other several body structures and organs. The systems which are inspired cardiovascular system, nervous system, respiratory system. This may influence gut, renal, lymphatic, and other systems. There is the regulation of inhalation and exhalation in Pranayama, which is finished with eliminating the pause between inhalation and exhalation or expending it with retention. The technology of pranayama respiration is thus intimately linked with the autonomic nervous system and brings its function below conscious manipulate through respiratory practices and movement of diaphragm and lungs. The nasal tissue is erectile and could be very sensitive to respiratory. Control of breath constitutes an apparent starting point toward the attainment of the manager of the autonomic nervous system. It seems to have useful effects on the capabilities of omental adiposities, brain, heart, lungs, liver, and kidney functions. The left nostril, diaphragm, and stomach are provided via the vagus nerve. Few clinical studies have proven that verbalization of mantras can decrease the respiration rate, due to accelerating vagal activity, resulting into increased nitric oxide release while the respiration rate is brought down to much less than six breaths per minute. It is feasible that manipulation of the left nostril through breath may additionally impact pituitary function, hypothalamus, pineal gland, and suprachiasmatic nucleus.

**Keywords:** Immunity, Covid-19 lung diseases

### Introduction

The communicable disease Novel corona virus first recognized in Wuhan, China. This disease has been named corona virus 2019 (Covid-19). In which 'CO' stands for corona, 'VI' for virus, and 'D' for disease. Covid-19 disease is a part of the novel corona virus. This communicable disease was mentioned as '2019 novel corona virus' or '2019-nCoV. This virus is made up of certain varieties of proteins, fats as well as certain kinds of genetic material. The Covid-19 virus is a new virus connected to the same circle of relative viruses as Severe Acute Respiratory Syndrome (SARS) and some kinds of common cold [1]. The virus penetrates through the protein that happens on the surface of our cells. In Covid-19 it penetrates through the nose, by eyes or throat. Through the nose, it (ACE2) comes into touch with the receptor that is presented to the surface of the lungs. This virus is transmitted through direct contact with respiration droplets of an infected patient which is generated through coughing and sneezing, and touching surfaces contaminated with the virus. Once this corona virus enters in the body and is derived into contact with the receptor it automatically starts to multiply which subsequently damages the cellular wall. The Covid-19 virus may survive on surfaces for numerous hours, but simple disinfectants can kill it [2].

### Immunity

Immunity, as we recognize it through contemporary medicine, is the function of certain cells, enzymes and immunomodulatory chemicals that assault pathogens and prevent them from

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creating diseases. This concept of invasion from microorganisms and a biological defense system against it led to the development of the range of antibiotics and vaccines in the twentieth century. Various developments in the last decade, like the emergence of auto-immune issues, widespread antibiotic resistance in microbes, and wider understanding of friendly bacteria and its functions, mainly inside our gut, have pressured us to reconsider the unidirectional concept of the immune system [3].

### Pranayama

Yoga workout routines have a holistic impact and convey body, mind, recognition and soul into balance. Yoga is very useful for strengthening all the system of the body. Impact of pranayama and asana on human body system is expansive and eternal. Pranayama is a completely unique approach of regulation of breathing cycle. Since respiration is under control of volition and it's an automatic act. It may be precisely altered although within limits. We can change the frequency and the amplitude [4].

We can breathe through 3 openings i.e. mouth, left and right both nostril and different combinations in many ways. Pranayama can be categorized into different types depending on the frequency, degree of depth used, forms of openings used and accompanying physical manipulations. We are privileged that five thousand years ago our ancestors thought of altering breathing patterns in very exactly medical manner. The knowledge about some types of pranayama is common place knowledge such as anulom-vilom pranayama, right nostril breathing and left nostril breathing [5].

### Methodology

For this paper, secondary data were taken from different Books, research reports, journals and research papers.

### Objectives

To know about the how to boost immunity system through the pranayama to fight against Covid-19 pandemic for maintain physiological and psychological fitness status in busy life.

### Pranayam

#### 1. Anuloma-Viloma Pranayam

As we know Anuloma stands for 'with the grain' and Viloma stands for 'against the grain'. Anuloma method is just contrary of Viloma. This breathing method stimulates the left and right energy channels (nadis) to preserve them balanced. It's the best pranayama to maintain balance on the Tri dosas (Three impurities) - Vata (Space and Air), Pitta (Fire and Water) and Kapha (Water and Earth). The imbalance of those dosas is the cause of diseases. Our immune system becomes poor with the imbalance with Tri dosas. Anuloma Viloma Pranayama is the easy breathing method to boost immune system.

**How to practice:** Sit comfortably in Padmasana and keep your back straight. Left hand should be straight and placing it on the left knee. Palm needs to face up and place fingers on Gyan Mudra. Eyes should be close. After that you have to block your right nose with the right thumb and place your pointed finger on the third eye to increase concentration. Then Inhale through the left nose with little bit force to fill lungs. Then you should block your left nose with middle finger and release your thumb from right nose. Then you have to exhale with right nose and then inhale with the same right nose with little bit force. After that again block your right nose with the

right thumb and exhale from left nose. Repeat this process for 5 to 10 minutes. At the beginning maintain 1:1 ration. If you take 4 seconds to inhale, exhale in 4 seconds as well. You can change the ration to 1:2.

**Benefits:** It is Excellent breathing method to calm and centre the mind. It works therapeutically for most circulatory and respiratory problems. Through the anuloma viloma releases accumulated stress in the mind and body effectively and helps relax. It additionally helps harmonize the left and right hemispheres of the brain, which correlate to the logical and emotional aspect of our personality. This pranayama helps purify and balance the nadis - the subtle energy channels, thereby ensuring smooth flow of prana through the body. It Maintains body temperature and helps in improvement of immunity. This pranayama also cures bronchitis, asthma, diabetes, arthritis, acidity, varicose veins, migraine, Blockages, Gastric problems, snoring blood pressure and many more [6].

#### 2. Bhramari Pranayama (The Humming Bee Breathing Technique)

In Sanskrit Bhramari means "bee". When we practice Bhramari pranayama it produces humming sound like a bee and that is why it's called Bhramari Pranayam. When we practice Bhramari Pranayama it creates vibrations which stimulate pituitary gland, pineal gland and activate nerves across the brain and forehead.

**How to Practice:** Sit in Padmasana or in Sukhasana position. Your spine, neck and head should be straight with relaxing shoulders. Facial muscles should be loose and lips touching lightly with relaxed jaw. Now place your pointed fingers just above your eyebrows. Then Close your eyes and cover up with middle, ring and little fingers. Put very gently pressure with these three fingers to the sides of your nose. Then place your thumbs on cartilages to block your ears. After that concentrate your mind between your eyebrows and gently pressure to your cartilages with thumbs to block ears and take a deep breath at the same time. Keep your mouth close all the time and exhale slowly through your nose with humming sound of Om. Repeat it for five minutes to 20 minutes.

**Benefits:** It has a natural calming effect. Bhramari pranayama stimulates Pituitary gland, as we know pituitary gland controls sexual maturation, reproduction, blood pressure, metabolism, growth, breast milk after childbirth. It also stimulates Pineal gland which secretes Melatonin. This hormone controls our biological rhythm. It Improves concentration and memory and hypertension patients should practice regularly to control their blood pressure Increases confidence. Bhramari pranayama is Beneficial for migraines, epilepsy, seizure, paralysis, and insomnia Cures Alzheimer's disease. It also improves sexual dysfunction. During pregnancy it regulates Endocrine system which helps easy child birth [7].

#### 3. Kapalbhatai Pranayama (Forehead Shining Breathing Technique)

"Kapalbhatai" means "Forehead Shining" pranayama. "Kapal" means "forehead" and "Bhatai" means "glow, radiance". If you start practicing Kapalbhatai Pranayama your face will start glowing. When you exhale forcefully you kick out all toxins from body which enables to enhance immune system and your intellect becomes refined and sharp.

**How to practice:** Sit comfortably on the Padmasana, keeping your spine straight then hands are straight and you are placing them on the knees. Your palms should face up and place your fingers on Gyan Mudra. Then eyes should be close and take complete and deep breath (inhale) forcefully through both nostrils so that your lungs are full with fresh air. Now forcefully exhale through both nostrils pulling your belly button towards the spine. While exhaling you should feel pressure in your stomach and make hissing sound. With every exhale you think that all toxins and physical and mental disorders are coming out. Practice the process for 5 to 10 minutes. In case of high blood pressure, heart issues, hernia, epilepsy then it is advisable to avoid this Pranayama. Women can avoid this during their pregnancy and menstruation.

**Benefits:** Kapalbhathi is not only the best Breathing Techniques for boosting immune system but also Kapalbhathi Reduces stress. It also cures all intestinal problems. Kapalbhathi helps to improve blood circulation in whole body parts. Kapalbhathi also cures diabetes, constipations, asthma, allergy, sinusitis, kidney issues and remove dark circles around the eyes <sup>[8]</sup>.

#### 4. Bhastrika Pranayama

Bhastrika means bellow. This is why it is called “Bellow Breathing”. Bhastrika pranayama generates heat in the body. Diaphragm and abdominal muscles draw air in and out of the lungs once we practice Bhastrika Pranayama and squeeze blood through the digestive organs which creates heat. We also call this pranayama as *Breath of Fire* because of its characteristic of engendering heat. This heat helps to keep body warm and boost immune system.

**Benefits:** Bhastrika pranayama is very beneficial breathing technique. It balances Tri dosas (Three impurities). Name of tri dosa is Vata (Space and Air), Pitta (Fire and Water) and Kapha (Water and Earth) in our body. Bhastrika pranayama energizes the body and the mind. It helps to improve the function of the spleen, pancreas, kidneys, liver, stomach, and intestines and digestive power. It's Beneficial for the nervous and motor system. Bhastrika pranayama helps to Break and dissolve the tumors. It also cures cold, flu, sinus, asthma and good for tonsils, thyroid, and throat problems. Bhastrika pranayama is very beneficial in the condition of migraine, Parkinson, paralysis, allergies. It cures any kind of heart diseases, reduces stress and anxiety and Increases concentration

**How to practice:** You can sit in Padmasana or in Sukhasana, Vajrasana as well. Your spine, neck and head should be straight with relaxing shoulders. Then Place your both hands on your knees making them straight. Keep your fingers in Gyan Mudra. After that Inhale through both nostrils with little bit force so that your lungs are full of air. Then Exhale through both nostrils with little force and make sure your lungs are free of air. Every inhale and exhale should be 2.5 seconds. It is advisable to practice Bhastrika Pranayama two to three times every day for 5 minutes to 10 minutes. Women can avoid this during their pregnancy and menstruation. Yogis with high blood pressure must consult with physician and practice under direct supervision of an experienced yoga guru. It is also not advisable to perform if you have epilepsy, seizures, or panic disorder and on a full stomach and before going to bed at night <sup>[8]</sup>.

#### 5. Udgeeth Pranayama (Chanting Breathing Technique)

The Sanskrit word ‘Udgeeth’ means chanting. When we practice udgeeth pranayama we chant the sound of universe ‘OM’ (AUM). It's the simplest and effective pranayama to practice. During this pranayama we chant ‘OM’ continuously with conscious breathings we visualize the breaths which lead to dhyana (meditation). Your body fills up with the sacred feeling of ‘OM’ calming down our monkey mind. The divine sound connects you with the universe. When you're connected to the Universe, you're free of anxiety, stress and tension. Immune system functions in its extreme capacity in a happy mind and well body.

**Benefits:** Regular practice of udgeeth pranayama cures bad dreams and Insomnia. It controls hypertension, Improves our nervous system and Increases memory power, concentration, positive thinking and self-confidence. Udgeeth pranayama cures acidity and improves digestive system. It stops diminution of eye sight and falling of hair, premature graying. This pranayama helps to reduce presence of wrinkles and retards the process of aging. Udgeeth pranayama also cures sexual dysfunction in both males and females. It improves blood circulation and relieves anxiety, tension, stress and anger.

**How to practice:** Sit in Padmasana or in Sukhasana. Your spine, neck and head straight should be with relaxing shoulders. Keep gentle smile on your face. Then place your both palms on Anjali Mudra (Meditative Mudra) on your crown. After that you have to Inhale through your nose till and fill up your diaphragm with full of air. Then exhale and chant the sacred word “OM”. Make sure the length of ‘O’ is 3 times longer than “M”. It is advisable to practice every day 5 minutes to 30 minutes. Udgeeth Pranayama should be performed on empty stomach. Make sure every inhalation is smooth and slow. When we inhale we must think that we are accepting all positive energies and removing all our negative energies with exhale <sup>[9]</sup>.

#### Conclusion

In summary, this review postulates that mind-body exercise such as pranayama couples sustained muscular activity with internally directed focus, producing a temporary self-contemplative mental state. Pranayama increases lung capacity and open up all tissues and cells of body, increases breathing time and eventually helps to increase the immunity and gives longevity to life. It also triggers neurohormonal mechanisms that bring about health benefits, evidenced by the suppression of sympathetic activity <sup>[10]</sup>. Thus, it reduces stress and anxiety, improves autonomic and higher neural centre functioning. However, there is a definite need for more directed scientific work to be carried out to elucidate the effects and the mechanisms of such effects of pranayama on the human body in health and disease <sup>[11]</sup>. Considering the scientific evidence discussed thus far, it is fair to conclude that pranayama can be beneficial in the prevention and cure of diseases. Pranayama will help to boost the immunity for a healthy life with regular practice. As all of us know that in India the 63% of effected people from this virus get recovered, it happened only because of their strong immune system. So that they are capable to fight affectively with this deadly virus COVID-19 and also win this fight successively. Pranayama is a perfect way to strong your immune system along with all other systems of the body <sup>[12]</sup>.

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