

### *Short Communication*

Sanjana Yadav\*<sup>1</sup>, Prof. (Dr.) Omnarayan Tiwari\*<sup>2</sup>

## EFFECT OF PRANAYAMA ON CARDIORESPIRATORY SYSTEM- A REVIEW

**Abstract:** The modern lifestyle we are living pose us to get the risk of cardiorespiratory diseases and the malfunctioning of the organs. Pranayama is known be the integral part of Ashtanga yoga, which improves our respiratory and cardiovascular function and helps in getting overall health. Pranayama has beneficial effect on all the level of body system. Pranayama plays the role of a bridge which connect our mind and body, and gives us overall health. There are many studies done which proves that there is positive effect of pranayama on the cardiorespiratory system.

**Keywords:** Pranayama, cardiorespiratory system

### **Article Information**

Article Link: [Click here](#)

Received: 15/05/2024 Accepted: 28/10/2024

1. Ph.D. Scholar, University of Patanjali, Haridwar, E-mail:

[Uttarakhand.sanjanayadav3884@gmail.com](mailto:Uttarakhand.sanjanayadav3884@gmail.com)

2. Dean Faculty of Yoga Science, University of Patanjali, Haridwar, Uttarakhand, E-mail:

[dswpssou@gmail.com](mailto:dswpssou@gmail.com)

[dromnarayantiwari@gmail.com](mailto:dromnarayantiwari@gmail.com)

1. 1.Ph.D. Scholar, University of Patanjali, Haridwar,

\*Author for Correspondence: Sanjana Yadav, Email: [Uttarakhand.sanjanayadav3884@gmail.com](mailto:Uttarakhand.sanjanayadav3884@gmail.com)

### **Introduction**

In our whole system the most fitness component in human is circulo-respiratory function because it helps to deliver oxygen and essential nutrients.

It also helps in the removal of waste products during the exertion. It required an efficient functioning of heart and lungs (Thakare, 2021). In this modern era of lifestyle, the chance of getting the risk of mental stress, cardiovascular diseases and other psychophysiological diseases are increase even in the younger ones also. And the one of the reasons for the increasing incidence is due to imbalance of sympathetic and parasympathetic nervous system. There are different types of pranayama such as Savitri pranayama, Nadi Sudhi pranayama, Kapalbhata, Ujjayi pranayama, etc. which can be perform according to the illness or for the maintenance of health. Through the practice of Left nostril breathing, we can improve our cardiorespiratory parameter. It modulates the physiological function of heart and lungs in healthy individuals. (Sheela Bargal, 2022). If there is stress either it is physical or mental for long time and continued, it results into sympathetic dominance which led to increase in the blood pressure, respiratory changes, increase in metabolic activity and also gastrointestinal changes take place which create the problems of ulcers and endocrine disbalance. But when we perform pranayama, it creates the harmony in mind and body and lessen the dominance of sympathetic system. The practice of Nadi Sodhan pranayama enhances our voluntary regulation of the breathing and the mind calm. (Anup Kumar, 2015)

The other yogic pranayama like Bhramari pranayama is proved which cause reduction of blood pressure and it leads to the relaxation in the parasympathetic after having the exercise in healthy individuals. When we incorporate the pranayama in the university wellness programs it gives the holistic approach

to the students. And it improves the personal and academic achievements (Kaur, 2023). Pranayama develops the positive attitude in the students because there is one says 'healthy mind remains in healthy body' when our mind is fresh and stable then it will be able to think positively and it becomes creative. It creates the interest in the students for achieving the normal health fitness and by practicing different form of yoga practices. (Rane, 2015). Different pranayama have different physiological benefits. As the pranayama are low energy consuming practice so it led to more effective in nature. The regular practice of pranayama reduced the risk of morbidity and mortality rate of cardiorespiratory system. It also helps in overcoming the stress, anxiety and other negative state of mind. (Sanjay Nehe, 2019). Pranayama is not only helpful in disease or for maintaining health it also helpful in improving the endurance power or stamina of the player. In one study we found that the practice of Bhramari pranayama improve the cardio respiratory endurance of the player. Because the Bhramari pranayama used to calm the body system, increases respiratory stamina, raise the energy level in the system and also relaxes the chest muscles and gives expansion to the lungs. (Kumar Bipin Pratap Bhusan, 2017).

One of the main reasons for having disorders of heart and lungs is smoking because smoking raises the arterial pressure, elevate the sympathetic tone and destroys the endothelium, all these increases the risk of vascular injury.

The deep breathing exercises increases the lung function and also protect from onset of chronic obstructive pulmonary complication. Deep breathing pranayama leads to dilation of arterioles, it is also useful in preserving the respiratory function. (Dr. Vaidik, 2022).

## **Discussion**

Patanjali who was the first exponent of yoga, he described pranayama as gradual unforced cessation of breath. The practice of pranayama is the art of controlling the breath and this led to control of thoughts. Because when we practice pranayama our whole focus is on inhaling and exhaling of breath and its retention, so it also increases our concentration level. (K Upadhyay Dhungel, 2008). In breathing we take prana which is atmospheric air, during ordinary breathing we take only normal supply of prana but during control way of breathing we are able to take great amount of prana. And this prana creates the harmony in our body system and make us calm and peaceful.

## **Conclusion**

Through the continuous practice of pranayama, we will enable to remove all the disease either it is physical or psychological. When we add pranayama in our daily life schedule then it will give a balance in our whole health, and we will be able to handle any type of situation with calm mind. Pranayama not only gives us a good health, but also raise our consciousness to the next level and clean our thought process. It creates a good vibe in us and make us feel light and gives the courage to maintain calmness in any adverse situation.

## References

- Thakare, D. V. (2021). Pranayama for enhancing respiratory and cardiovascular function. *Lulu Publication*.
- Sheela Bargal, V. N. (2022). Evaluation of the Effect of Left Nostril Breathing on cardiorespiratory parameter and the reaction time in young healthy individuals. *Cureus*.
- Anup Kumar, N. D. (2015). Effect on alternate nostril breathing on cardiorespiratory variable in healthy young adults. *International Journal of Pharma and Bio Sciences*.
- Kaur, D. P. (2023). Examining the impact of a short-term Bharamari Pranayama practice on cardiorespiratory endurance among university level boys: A quantitative study. *International Journal of Yogic, Human Movement and Sports Sciences*.
- Rane, d. V. (2015). Effect of pranayama on status of cardio respiratory endurance in the college students. *International research journal of physical education and sports sciences*.
- Sanjay nehe, j. M. (2019). Effects of pranayama on cardiorespiratory parameters. *Ijrar*.
- Kumar Bipin Pratap Bhushan, N. N. (2017). Impact of Bhramari Pranayama on Cardio Respiratory Endurance among the Cricket Players with Special Reference to Prakriti (Psycho-somatic Constitution). *International Journal of Physical Education and Sports*.
- Dr. Vaidik, P. C. (2022). Immediate effects of slow pranayama on cardio respiratory parameters in young adult tobacco smokers. *International Journal of research and analytical reviews*.
- K Upadhyay Dhungel, V. M. (2008). Effect of alternate nostril breathing exercise on cardiorespiratory functions. *Nepal medical college*.